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ABSTRACT

The final five units of a program designed to teach reading readiness to visually handicapped children who are potential braille or large print readers are presented. Learning activities, games, and lesson plans are provided for the following five units: positions (up/down, over/under), relationships (same/different, part/whole), time (first/last, before/after), configurations (patterning, sequencing), and classification (sorting into categories, selecting categories for grouping). In addition to the structured activities, each lesson also includes a pretest, posttest, and a list of experiential exercises. (CL)

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# PREP

# Preparatory Reading Program for Visually Handicapped Children

## UNITS VI–X

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4

VI

UP/DOWN

# UNIT VI : POSITIONS II

## LESSON 1 : UP/DOWN

# Pretest

**Materials**

a ball
a comb

**Test**

1. Have the child sit on a chair.

   a. SAY: "Show me how you bring one hand up."

   b. SAY: "Now show me how you put your hand down."

   c. SAY: "Show me how you bring your legs up."

   d. SAY: "Now show me how you put your legs down."

> If all four actions are performed correctly, go on to Question 2.
>
> If one or more actions are performed incorrectly, the child should concentrate on the UP-DOWN Experiential Exercises and begin with Guided Presentation 1.

2a. Give the child the ball.

SAY: "Put the ball up."

b. SAY: "Put the ball down."

c. Give the child the comb.
SAY: "Pick the comb up."

d. SAY: "Put the comb down."

If all four actions are performed correctly, go on to Question 3.

If one or more actions are performed incorrectly, the child should begin with Guided Presentation 2.

3a. Select an object in the room that is on the floor (a toy, a carpet, etc.). Place the child's hands on the object.
SAY: "Here is a (name object). Is it up, or is it down?"

b. Select an object that is above the child's head but within the child's reach (a lampshade, a picture, etc.).
SAY: "Here is a (name object). Is it up, or is it down?"

## Pretest

Repeat the exercise using four more objects, varying the sequence of up and down positions for a total of three up and three down (e.g., up/down/down/up).

If the child accurately indicates up and down in all six trials, go on to the next set of concepts.

If the child does not accurately indicate up and down in all six trials, begin with Guided Presentation 3.

# Experiential Exercises

For the purpose of these exercises, up is defined as being in or moving into a higher position or level. Down is defined as being in or moving into a lower position or level.

1. Give the child a volleyball. Help the child roll, throw, and bounce the ball. As the child plays with the ball use the terms up and down when discussing the movements.

2. Use play equipment to introduce the terms up and down. Help the child climb up and down ladders, climb up and slide down the slide, and go up and down on the see-saw. Point out that the child is climbing up, sliding down, etc.

3. Help the child explore the classroom. Ask the child to look for things that are up. Explore objects at or above the child's shoulders, noting that these are up. Contrast the position of these objects with the position of objects that are down. Let the child crawl about on the floor, looking for things that are down.

# Experiential

4. When doing exercises or body movements, talk about up and down. Ask the child to jump up, lie down, clap hands up, clap hands down, stretch up, bend down.

5. Let the child play with a toy, such as a jack-in-the-box, which moves up and down. Help the child put the toy in a downward position and feel it when it moves up. Allow the child to experience the two positions and apply the terms up and down when discussing the toy's movements.

6. Give the child toys that make a sound, such as bells, noise makers, or a drum. March around the room, keeping time with the musical toys. Strike an instrument above your head or on the floor, then ask the child to tell you whether the sound is up or down.

# Guided Presentation 1

**OBJECTIVE:** The child will be able to perform up and down body movements as directed by the teacher.

**PURPOSE:** These exercises will help the child become aware of up and down in relation to his or her body. The child should know the following parts of the body before attempting these exercises:

arms
feet
knees
head

**MATERIALS:** None.

# G.P.1

## Exercise A

| | |
|---|---|
| Sit on the floor with the child and help the child perform the activities. | "Let's raise your arms up."<br>"Now let's put your arms down."<br>"You can put your arms up."<br>"And you can put your arms down." |
| Help the child if necessary. | "Let's see you put your arms up." (Wait for response.)<br>"Let's see you put your arms down." (Wait for response.) |

# G.P.1

## Exercise B

| | |
|---|---|
| Lie on the floor with the child. Help the child perform the activities. | "Let's lie down on the floor."<br>"You can put your feet up."<br>"And you can put your feet down." |
| Help the child if necessary. | "Let's see you put your feet up and wiggle them." (Wait for response.)<br>"Let's see you put your feet down and wiggle them." (Wait for response.) |

# G.P.1
## Exercise C

| | |
|---|---|
| Sit on the floor with the child. Help the child perform the activities. | "Sit down on the floor. When you sit on the floor like this your head is up."<br>"When you put your head on your knees your head is down." |
| Help the child if necessary. | "Show me how you put your head up." (Wait for response.)<br>"Now show me how you put your head down." (Wait for response.) |

# G.P.1

## Exercise D

| | |
|---|---|
| Help the child into a squatting position. | "When you bend your knees your body goes down. Now your body is down." |
| Holding both of the child's hands, pull the child to a standing position. | "You can jump up like this." |
| Hold the child's hands as he or she squats down and jumps up. | "Let's do it again. Squat down. Jump up." |
| Help the child if necessary. | "Show me how you squat down." (Wait for response.)<br>"Now show me how you jump up." (Wait for response.) |

# G.P.1

## Exercise E

| | |
|---|---|
| Stand in front of the child. | "Now we can plan a game called 'Simon Says'. I want you to do everything Simon says." |
| Help the child if necessary. | "Simon says, 'Sit down'." (Wait for response.)<br>"Simon says, 'Put your arms up'." (Wait for response.)<br>"Simon says, 'Put your arms down'." (Wait for response.)<br>"Simon says, 'Put your head down on your knees'." (Wait for response.)<br>"Simon says, 'Put your head up'." (Wait for response.)<br>"Simon says, "Lie down'." (Wait for response.)<br>"Simon says, 'Put your feet up'." (Wait for response.)<br>"Simon says, 'Put your feet down'." (Wait for response.)<br>"Simon says, 'Jump up'." (Wait for response.) |

The child should be able to perform eight of the nine body movements specified in Exercise E without help from the teacher.

If the child cannot perform eight of the nine body movements, review the UP-DOWN Experiential Exercises and repeat Guided Presentation 1.

# Guided Presentation 2

**OBJECTIVE:** The child will be able to move objects up and down as specified by the teacher.

**PURPOSE:** These exercises will help the child understand and apply the concepts of up and down when interacting with objects.

**MATERIALS:**

Exercise A

a cup of milk or juice

two small cookies

Exercise B

a round balloon filled with air

a string (approximately equal to the height of the child)

masking tape (to fasten balloon to floor)

Exercise C

a toy telephone

Exercise D

a piece of heavy cardboard (about 1 foot by 2 feet)

a small box (about 1 foot by 1 foot)

a volleyball

VI

UP/DOWN

# G.P.2

## Exercise A

a cup of milk or juice
two small cookies

| | |
|---|---|
| Sit at a table. Put the cup and a cookie in front of the child. | "I have some milk (juice) and a cookie for you." |
| Guide the child's hand to the cup and the cookie. Help the child perform the activities as you talk. | "I'd like you to pick up the cookie and eat it." (Wait for response.)<br>"You are moving the cookie up."<br>"I'd like you to pick up the cup and drink the milk." (Wait for response.)<br>"You are moving the cup up."<br>"Now can you put the cup down." (Wait for response.)<br>"Let's see you move the cup up." (Wait for response.)<br>"Now move the cup down." (Wait for response.) |
| Place a cookie in the child's hand. | "Here is a cookie. Show me how you move it down." (Wait for response.)<br>"Now move the cookie up." (Wait for response.)<br>"You may eat the cookie." |

# G.P.2

## Exercise B

VI

UP/DOWN

Blow up the balloon and tie it with string. Fasten the free end of the string to the floor with tape so that the balloon is as high as the child's head.

a balloon
a string
masking tape

| | |
|---|---|
| Put the child's hands under the balloon and help the child move the balloon as you talk. | "Here is a balloon on a string. You can move it up and you can move it down." |
| Help the child perform the activities. | "Let's put the balloon up. Now let's put it down." (Wait for response.)<br>"Put the balloon up. If you take your hands away, the balloon will go down. Can you find it?" |
| Repeat several times. Help the child if necessary. | "Let's put the balloon up again." (Wait for response.)<br>"Now let it fall down." (Wait for response.) |

# G.P.2

## Exercise C

a toy telephone

| | |
|---|---|
| Present the telephone to the child and show the child the receiver. Help the child perform the activities. | "Do you like to talk on the telephone?" (Wait for response.)<br>"This is called the receiver."<br>"Let's see you pick up the receiver." (Wait for response.)<br>"When the receiver is up, you can talk."<br>"When you finish talking you put the receiver down."<br>"Let's see you put the receiver down." (Wait for response.) |
| Repeat this activity several times. Help the child if necessary. | "Pick the receiver up." (Wait for response.)<br>"You can talk."<br>"Now put the receiver down." (Wait for response.) |

# G.P.2

## Exercise D

| | |
|---|---|
| Make a 45 degree incline by propping the piece of cardboard on the box. Place the bottom of the incline against a wall. Help the child explore the objects and roll the ball as specified. | "Here is a ball. I made a little ramp so you can roll the ball up and down."<br>"Let's roll the ball up." (Wait for response.)<br>"Now let's find the ball and roll it down." (Wait for response.) |
| Repeat four times. Help the child if necessary. | "I'd like to see you roll the ball up." (Wait for response.)<br>"Now roll the ball down." (Wait for response.) |

- a piece of heavy cardboard
- a small box
- a volleyball

The child should be able to perform the specified activities in three out of four trials in Exercise D without help from the teacher.

If the child is unable to perform the activities in three out of four trials, review the UP-DOWN Experiential Exercises and Guided Presentation 1; repeat Guided Presentation 2.

# Guided Presentation 3

**OBJECTIVE:** The child will be able to determine whether an external object is in an up or down position.

**PURPOSE:** These exercises are designed to help the child generalize his or her understanding of up and down to the relative position of objects in the environment.

**MATERIALS:**

Exercise A

a hand bell or jingle bells

Exercise B

a pail filled with water (about 1 foot deep)

a wooden block (about 2 inches by 2 inches by 1 inch)

a sponge

a small rubber ball

a marble

a small rock

Exercise C

none

# G.P.3

## Exercise A

VI

UP/DOWN

a hand bell or jingle bells

Give the bell to the child. Help the child perform the specified activities.

"Here's a bell for you. When you shake it, it rings."

"When you ring the bell over your head, the bell is up."

"When you ring the bell by your feet, the bell is down."

Ring the bell above the child's head.

"I'm going to ring the bell. Tell me if it is up, or if it is down." (Wait for response.)

"The bell is up. Touch it."

Ring the bell near the floor.

"I'm going to ring the bell again. Is the bell up or is the bell down?" (Wait for response.)

"The bell is down. Touch it now."

Continue the exercise by randomly ringing the bell several times above the child's head or near the floor. Help the child if necessary.

"I'm going to ring the bell again. Is the bell up or is the bell down?" (Wait for response.)

# G.P.3

## Exercise B

a pail filled with water
a wooden block
a sponge
a small rubber ball
a marble
a small rock

Present all the objects to the child. Help the child perform the activities.

"Here are some things to feel: a bucket of water, a block, a sponge, a ball, a marble, and a rock."

"This is the rock. I'd like you to put it into the water." (Wait for response.)

"Can you find it?" (Wait for response.)

"The rock went down."

"Here is the wooden block. Put the block into the water." (Wait for response.)

"Can you find it?" (Wait for response.)

"The block stays up."

---

Put the block, the sponge, the ball, the marble, and the rock into the water one at a time. Help the child if necessary.

"I've put the other things into the water. Some of them are up and some are down. Give me the things that are up." (Wait for response.)

"Now give me the things that are down." (Wait for response.)

# G.P. 3

## Exercise C

| | |
|---|---|
| The child should be in a familiar room for this exercise. Help the child explore familiar objects in the room which are above the child's shoulders. Name and discuss each object. | "Let's walk around the room to see what we can find that is up." |
| Help the child explore familiar objects in the room which are below the child's waist. Name and discuss each object. | "Now let's see what we can find that is down." |
| Place the child's hands on six familiar objects in the room that are clearly up or down. Help the child if necessary. | "Here is a (name object). Is it up, or is it down?" (Wait for response.) |

The child should be able to indicate that an object is up or down in five out of six trials in Exercise C without help from the teacher.

If the child is unable to correctly indicate whether an object is up or down in five out of six trials, review the UP-DOWN Experiential Exercises and Guided Presentations 1 and 2; repeat Guided Presentation 3.

# Posttest

**Materials**

a ball
a comb

**Test**

1. Have the child sit on a chair.
   - a. SAY: "Show me how you bring one hand up."
   - b. SAY: "Now show me how you put your hand down."
   - c. SAY: "Show me how you bring your legs up."
   - d. SAY: "Now show me how you put your legs down."

2a. Give the child the ball.
SAY: "Put the ball up."

b. SAY: "Put the ball down."

c. Give the child the comb.
SAY: "Pick the comb up."

d. SAY: "Put the comb down."

3a. Select an object in the room that is on the floor (a toy, a carpet, etc.). Place the child's hands on the object.
SAY: "Here is a (name object). Is it up, or is it down?"

b. Select an object that is above the child's head but within the child's reach (a lampshade, a picture, etc.).
SAY: "Here is a (name object). Is it up, or is it down?"

Repeat the exercise using four more objects, varying the sequence of up and down positions for a total of three up and three down (e.g., up/down/down/up).

If the child accurately responds to all of the above items, he or she has demonstrated an understanding of the concepts up and down.

# UNIT VI : POSITIONS II

## LESSON 2 : OVER/UNDER

VI

OVER/UNDER

# Pretest

**Materials**

a table that the child can go under
a paper napkin
a paper plate
a quarter
a paper cup
a dish towel or paper towel
a small chair
a blanket

**Test**

1a. Have the child lie down.

SAY: "I'd like you to hold your hands over your body."

b. SAY: "Now put your hands under your body."

c. Stand by the table with the child.

SAY: "Show me how you go under the table."

d. SAY: "Now hold your arm over the table."

If all four actions are performed correctly, go on to Question 2.

If one or more actions are performed incorrectly, the child should concentrate on the OVER-UNDER Experiential Exercises and begin with Guided Presentation 1.

2a. Sit at the table next to the child. Give the child the paper plate and the paper napkin.

SAY: "I'd like you to put the napkin under the plate."

b. SAY: "Now put the napkin over the plate."

c. Give the child the quarter, the paper cup, and the towel.

SAY: "Hide the quarter under the paper cup."

d. SAY: "Now put the towel (or paper towel) over the cup."

If all four actions are performed correctly, go on to Question 3.

If one or more actions are performed incorrectly, the child should begin with Guided Presentation 2.

3a. Cover the small chair with the blanket.

SAY: "Is the blanket over the chair or is the blanket under the chair?"

b. Put the blanket on the floor and place the chair on it.

SAY: "Now is the blanket over the chair or is the blanket under the chair?"

c. Clap your hands over the child's head.

SAY: "I'm clapping my hands. Are my hands over you or are my hands under you?"

If all three items are answered correctly, the child can go on to the next set of concepts.

If one or more items are answered incorrectly, the child should begin with Guided Presentation 3.

# Experiential Exercises

For the purpose of these exercises, over is defined as located above something. Under is defined as located below something.

1. Use the concepts of over and under whenever appropriate during classroom activities. Point out the relative positions, over and under, of objects in the child's environment which he or she can explore tactually.

2. Help the child discover objects in the room which he or she can go under, such as tables, chairs, or easels. Contrast these with objects which the child can go over, such as pillows, balance beams, etc.

3. Tie a rope between two chairs. Let the child crawl under the rope. Lower the rope and ask the child to go over it. Roll a ball under the rope and then play catch with the child, throwing the ball over the rope. Stress the concepts of over and under during these activities.

# Experiential Exercises

4. Remove the tops from a number of cardboard boxes of various sizes. Use shoe boxes, gift boxes, and different sized boxes from the grocery store. Make sure one box is large enough to cover the child completely. Place toys, classroom materials, or snacks under the boxes and let the child find the hidden objects. Let the child hide objects under the boxes for the teacher to find. Let the child experiment with different sized boxes, seeing which ones he or she can step over and which he or she can get under. Use the terms *over* and *under* when discussing the activities as the child plays with the boxes.

5. Play leapfrog. Talk with the child about going *over* and going *under*. If the child is unable to participate in such an active game, sing and play "London Bridge," stressing that the arms are *over* and the player passes *under*.

# Guided Presentation 1

**OBJECTIVE:** The child will be able to position his or her body over or under a reference point specified by the teacher.

**PURPOSE:** These exercises are designed to help the child become aware of over and under as reference points in relation to his or her body.

**MATERIALS:**

Exercise A

none

Exercise B

a large cardboard box (about 3 feet by 3 feet by 3 feet; cut large openings in the sides if you suspect that the child will be frightened when covered with the box)

a small cardboard box (about 1 foot by 1 foot by 1 foot)

one object in the classroom that the child can go under (table, desk, easel, large chair)

Exercise C

a clothesline rope or a strip of white sheet (about 8 feet)

Exercise D

a child's blanket or other cover

# G.P.1
## Exercise A

Sit on the floor with the child. Help the child perform the activities.

"Let's put your hands over your head. Now, wiggle your fingers over your head."

"Let's put your hands under your chin. Wiggle your fingers under your chin."

"Now put your hands over your knees. Wiggle your fingers over your knees. Now wiggle your fingers under your knees."

---

Help the child if necessary.

"Let's see you wiggle your fingers over your head." (Wait for response.)

"Wiggle your fingers under your chin." (Wait for response.)

"Wiggle your fingers under your knees." (Wait for response.)

"Can you wiggle your fingers over your feet?" (Wait for response.)

# G.P.1

## Exercise B

VI

OVER/UNDER

| | |
|---|---|
| | "Let's find something you can go under." |
| Crawl under the object with the child. Put the child's hand on the object which is over the child's head. | "Here is a (name object). Let's sit under it. Now it is over your head." |
| Present the small cardboard box. | "Let's see if you can sit under this box. You are too big to fit under this box." |
| Present the large cardboard box. Put the box over the child. | "You can sit under this big box." |

a large cardboard box

a small cardboard box

one object in the classroom that the child can go under

**VI**

**OVER/UNDER**

# G.P.1

## Exercise C

**a clothesline rope or a strip of white sheet**

| | |
|---|---|
| Tie the rope between two chairs or other objects so that it is about as high as the top of the child's head. Help the child go under the rope. | "Here is a rope. See if you can go under it without touching your head on the rope." |
| Tie the rope lower so that the child must go under on hands and knees. Help the child crawl under the rope. | "I have moved the rope. See where it is now. Can you crawl under without touching your head?" |
| Lower the rope so that the child must lie on his or her stomach to go under. Help the child go under and over the rope. | "I'm going to move the rope again. You must lie down to go under it." |
| | "Now I'd like to see you step over the rope." |
| Raise the rope slightly above the child's knees. Let the child feel the rope. Help the child step over the rope. | "Now the rope is here. Can you step over it?" |

(continued)

# G.P.1

Raise the rope as high as the child's waist. Let the child feel the rope. Help the child go under the rope if necessary.

"Where is the rope now? Can you step over it?" (Wait for response.)

"It's too high to step over, but you can go under the rope. Let's see you go under the rope."

# G.P.1

## Exercise D

Sit on the floor with the child. Present the blanket to the child. Help the child perform the activities if necessary.

**a child's blanket**

"Here is a blanket."

"I'd like to see you get under the blanket." (Wait for response.)

"Now put your feet over the blanket." (Wait for response.)

"Now put your feet under the blanket." (Wait for response.)

"Put your hands under the blanket." (Wait for response.)

"Now put your hands over the blanket." (Wait for response.)

"Let's see you put your head under the blanket." (Wait for response.)

The child should be able to perform five of the six activities specified in Exercise D without help from the teacher.

If the child cannot perform five out of six specified activities, review the OVER-UNDER Experiential Exercises and repeat Guided Presentation 1.

# Guided Presentation 2

**OBJECTIVE:** The child will be able to position objects over or under a reference point specified by the teacher.

**PURPOSE:** These exercises will help the child understand and apply the concepts of over and under when interacting with objects, so that the child's focus of attention begins to move towards external reference points and away from his or her body.

**MATERIALS:**

Exercise A

a balloon on a string
a volleyball
a small umbrella

Exercise B

a carpet square or mat
a block of wood (large enough for a child to stand on)
a newspaper

Exercise C

a table (no more than 3 feet across)
*a volleyball

(continued)

**MATERIALS:** (continued)

Exercise D

a platform made from a shoebox (cut away the long side sections, making a platform under which the child can put his or her hand)

a hand bell or jingle bells

a small toy car with wheels

Exercise E

*a table

*a carpet square or mat

*a small umbrella

*a volleyball

*a balloon on a string

# G.P.2

## Exercise A

"I have some things we can put over our heads."

---

Present the items to the child. Help the child perform the activities.

"Here is a balloon on a string. Shake the balloon over your head."

"Here is a ball. Hold the ball over your head and throw it."

"Here is an umbrella. When it rains an umbrella keeps the rain off your head. Put the umbrella over your head and let's pretend we're walking in the rain."

a balloon on a string
a volleyball
a small umbrella

VI

OVER/UNDER

# G.P.2

## Exercise B

a carpet square
a block of wood
a newspaper

Stamp your feet as a model for the child, then present the objects to the child. Help the child perform the activities.

"Stamp your feet on the floor. The floor is under your feet." (Wait for response.)

"I have some other things you can put under your feet." (Wait for response.)

"Here is a mat. Put it under your feet and stamp on it." (Wait for response.)

"Here is a block of wood. Put it under your feet and stamp on it." (Wait for response.)

"Let's crumple this newspaper and put it under your feet. It makes a funny noise when you stamp on it. Stamp on the newspaper so we can hear it."

# G.P.2

## Exercise C

| | |
|---|---|
| Let the child sit on the floor on one side of a table. The teacher should sit on the floor directly across from the child and help the child if necessary. | "I'd like you to roll the ball under the table to me." (Wait for response.)<br>"Now I will roll it back under the table to you." |
| Stand up across the table from the child and help the child if necessary. | "Now let's roll the ball over the table."<br>"Roll the ball to me over the table." (Wait for response.)<br>"Now I'll roll it back to you over the table." |
| Alternate rolling the ball under the table or rolling the ball over the table in a random order. Help the child if necessary. | "Roll the ball to me over the table." (Wait for response.)<br>"Roll the ball to me under the table." (Wait for response.) |

a table

a volleyball

**VI**

**OVER/UNDER**

# G.P.2
## Exercise D

a platform
a hand bell
a small toy car

| | |
|---|---|
| The teacher should sit opposite the child during this exercise. Present the platform to the child. | "Here is a little platform." |
| Give the bell to the child. Help the child perform the activities. | "Here is a bell. I'd like you to put it under the platform." (Wait for response.)<br>"Now ring the bell over the platform." (Wait for response.)<br>"Give the bell to me under the platform." (Wait for response.) |
| Give the car to the child. Help the child if necessary. | "Here is a car that rolls. Roll the car under the platform." (Wait for response.)<br>"Now give the car to me over the platform." (Wait for response.) |

# G.P.2

## Exercise E

- a table
- a carpet square
- a small umbrella
- a volleyball
- a balloon on a string

| | |
|---|---|
| Stand next to a table with the child. Place all materials on the table. | "Here are some things we have used before: a mat, an umbrella, a ball, and a balloon." |
| Present the carpet square to the child. Help the child if necessary. | "Put the mat under your feet." (Wait for response.) |
| Present the umbrella to the child. Help the child if necessary. | "Put the umbrella over your head." (Wait for response.) |
| Present the ball to the child. Help the child if necessary. | "Here is a ball. Roll it under the table." (Wait for response.) |
| Present the balloon to the child. Help the child if necessary. | "Put the balloon over your head." (Wait for response.)<br>"Now put the balloon over the table." (Wait for response.) |

The child should be able to perform four of five activities specified in Exercise E without help from the teacher.

If the child cannot perform four of five activities, review the OVER-UNDER Experiential Exercises and Guided Presentation 1; repeat Guided Presentation 2.

# Guided Presentation 3

**OBJECTIVE:** The child will be able to indicate whether an object is over or under a reference point specified by the teacher.

**PURPOSE:** These exercises will help the child generalize his or her understanding of over and under to the relative positions of objects in the environment.

**MATERIALS:**

Exercise A

a yellow clothesline rope or strip of white sheeting (about 10 feet)

two chairs with backs (approximately as high as the child's head)

Exercise B

a paper napkin

a cookie

Exercise C

a table (no more than 3 feet across)

a volleyball

# G.P.3

## Exercise A

VI

OVER/UNDER

Make a "bridge" by tying the rope between two chairs as high as the child's head. Hold the child's hand as you sing and go back and forth under the rope.

"Let's play London Bridge. This rope is the bridge. We can walk under it." (Sing "London Bridge.")

"Let's go under the bridge again."

Stop the child under the rope.

"I'd like you to show me where the bridge is." (Wait for response.)

"Is the bridge under you or is it over you?" (Wait for response.)

"The bridge is over you."

Help the child perform the activities if necessary. Stop the child under the rope again.

"Will you go under the bridge again." (Wait for response.)

"Is the bridge under you or is the bridge over you?" (Wait for response.)

a yellow clothesline rope
two chairs with backs

VI

OVER/UNDER

# G.P.3

## Exercise B

a paper napkin
a cookie

| | |
|---|---|
| Have the child sit comfortably at a table for this exercise. Give the child a napkin. | "Let's have a cookie. Here is a napkin to put your cookie on." |
| Place the cookie on the napkin. | "Here is a cookie. Is the cookie over the napkin, or is the cookie under the napkin?" (Wait for response.)<br>"The cookie is over the napkin." |
| Put the cookie under the napkin. | "I'm going to move the cookie."<br>"Is the cookie over the napkin, or is the cookie under the napkin?" (Wait for response.)<br>"The cookie is under the napkin." |
| Place the cookie on the napkin. | "Is the cookie over the napkin, or is the cookie under the napkin?" (Wait for response.) |
| Place the cookie under the napkin. | "Now is the cookie over the napkin, or is the cookie under the napkin?" (Wait for response.)<br>"The cookie is for you." |

# G.P.3

## Exercise C

VI

OVER/UNDER

| | |
|---|---|
| Let the child hold the ball with you as you place the ball over the child's head. Help the child respond if necessary. | "Here is a ball. Is the ball over you, or is the ball under you?" (Wait for response.) |
| Place the ball under the table. Show the ball to the child. Help the child respond if necessary. | "Is the ball over the table, or is the ball under the the table?" (Wait for response.) |
| Roll the ball across the top of the table with the child. Help the child respond if necessary. | "Are we rolling the ball over the table or are we rolling the ball under the table?" (Wait for response.) |
| Put the ball on the floor. Help the child respond if necessary. | "Sit on the ball. Is the ball over you or under you?" (Wait for response.) |

a table
a volleyball

The child should be able to answer all four questions in Exercise C correctly without help from the teacher.

If the child cannot answer all four questions correctly, review the OVER-UNDER Experiential Exercises and Guided Presentations 1 and 2; repeat Guided Presentation 3.

VI

OVER/UNDER

# Posttest

**Materials**

a table that the child can go under
a paper napkin
a paper plate
a quarter
a paper cup
a dish towel or paper towel
a small chair
a blanket

**Test**

1a. Have the child lie down.

SAY: "I'd like you to hold your hands over your body."

b. SAY: "Now put your hands under your body.

c. Stand by the table with the child.

SAY: "Show me how you go under the table."

d. SAY: "Now hold your arm over the table."

2a. Sit at the table next to the child. Give the child the paper plate and the paper napkin.

SAY: "I'd like you to put the napkin under the plate."

b. SAY: "Now put the napkin over the plate."

c. Give the child the quarter, the paper cup, and the towel.

SAY: "Hide the quarter under the paper cup."

d. SAY: "Now put the towel (or paper towel) over the cup."

3a. Cover the small chair with the blanket.

SAY: "Is the blanket over the chair or is the blanket under the chair?"

b. Put the blanket on the floor and place the chair on it.

SAY: "Now is the blanket over the chair or is the blanket under the chair?"

c. Clap your hands over the child's head.

SAY: "I'm clapping my hands. Are my hands over you or are my hands under you?"

If the child accurately responds to all of the above items, he or she has demonstrated an understanding of the concepts over and under.

VII

SAME/DIFFERENT

# UNIT VII : RELATIONSHIPS

## LESSON 1 : SAME/DIFFERENT

# Pretest

two identical pencils
two identical napkins
two identical rubber bands
one index card
two drinking straws
one eraser

Have the child sit comfortably at a table for this pretest.

1a. Place one pencil and one napkin on the table in front of the child.

SAY: "Here are some things on the table for you to feel." (Hand the second napkin to the child.) "I'd like you to find something on the table that is the same as this."

b. Place the index card and one rubber band on the table in front of the child.

SAY: "Here are some things on the table for you to feel." (Hand the second rubber band to the child.) "I'd like you to find something on the table that is different from this."

c. Place one pencil and one drinking straw on the table in front of the child.

SAY: "Here are some things on the table for you to feel." (Hand the second drinking straw to the child.) "I'd like you to find something on the table that is exactly the same as this."

> If all three items are answered correctly, go on to Question 2.
>
> If one or more items are answered incorrectly, the child should concentrate on the SAME-DIFFERENT Experiential Exercises and begin with Guided Presentation 1.

2a. Hand one drinking straw and the eraser to the child.

SAY: "Are these the same, or are these different?"

b. Hand the two rubber bands to the child.

SAY: "Are these the same, or are these different?"

c. Hand the index card and one napkin to the child.

SAY: "Are these exactly the same, or are these different?"

If all three items are answered correctly, go on to Question 3.

If one or more items are answered incorrectly, the child should begin with Guided Presentation 2.

3a. Place two pencils and the index card on the table in front of the child.

SAY: "I'd like you to show me the things on the table that are the same."

b. Place two napkins and one drinking straw on the table in front of the child.

SAY: "I'd like you to show me the thing on the table that is different."

c. Place two rubber bands and the eraser on the table in front of the child.

SAY: "I'd like you to show me the things on the table that are exactly the same."

If all three items are answered correctly, go on to the next set of concepts.

If one or more items are answered incorrectly, the child should begin with Guided Presentation 3.

# Experiential Exercises

In these exercises *same* indicates identical characteristics and functions, and *different* indicates characteristics and funtions which are not identical.

1. Use the terms *same* and *different* during the course of the school day whenever applicable to reinforce the concepts.

2. Have the child sort nuts and bolts (or other objects) into two piles, and use the terms *same* and *different* when describing the piles.

3. Give the child an object. Play a game in which he or she must find something that is the same as the object.

4. When the child is playing with clay, make a shape and then have the child make a shape that is the same and a shape that is different.

5. When playing with musical instruments, have the child play a rhythm or pattern that is the same as, and a rhythm or pattern that is different from, a designated rhythm or pattern.

# Experiential Exercises

6. Ask the child to talk about the things he or she does that are the same every day. Then ask the child to talk about something he or she has done that made one day different from most days.

# Guided Presentation 1

**OBJECTIVE:** The child will be able to select, from a group of objects, one object that is the same as, or different from, an object presented by the teacher.

**PURPOSE:** These exercises will help the child learn to match objects according to their attributes and to identify those objects whose attributes are not the same.

**MATERIALS:**

Exercise A

one sponge
two identical spools of thread
one marble
two identical square cookies

Exercise B

one orange (or other fruit familiar to the child)
two tablespoons
one dinner plate (paper or plastic)
two cotton balls

(continued)

**MATERIALS:** (continued)

Exercise C

- *one square cookie
- two identical paper cups
- *one legal-size envelope
- *two tablespoons
- *one spool of thread
- two identical marbles
- *one orange (or other fruit familiar to the child)
- *two cotton balls

# G.P.1

## Exercise A

one sponge
two identical spools of thread
one marble
two identical square cookies

| | |
|---|---|
| Have the child sit comfortably at a table. Place one sponge and one spool of thread on the table in front of the child. | "Here are some things for you to feel. They're on the table." |
| Hand the second spool of thread to the child. | "This is another object for you. I'd like you to find something on the table that is the same as this." (Wait for response.) |
| Put the spool of thread that is on the table into the child's hands, if necessary. The child should now be holding both spools of thread. | "These are the same." |
| Take one spool of thread from the child and hand the child a sponge. The child should now be holding a sponge and a spool of thread. | "Are these the same?" (Wait for response.)<br>"No, these aren't the same." |
| Take the sponge from the child and again hand the child a second spool of thread. The child should be holding both spools of thread. | "Are these the same?" (Wait for response.)<br>"Yes, these are the same." |

(continued)

# G.P.1

## Exercise A

(continued)

| | |
|---|---|
| Remove all three objects, then place one marble and one cookie on the table in front of the child. | "Here are more things to feel. They're on the table." |
| Hand the second cookie to the child. | "This is another object for you. I'd like you to find something on the table that is the same as this." (Wait for response.) |
| Put the cookie that is on the table into the child's hands if necessary. The child should now be holding both cookies. | "These are the same." |
| Take one cookie from the child and hand the child a marble. The child should now be holding a cookie and a marble. | "Are these the same?" (Wait for response.)<br>"No, these are not the same." |
| Take the marble from the child and again hand the child the second cookie from the table. The child should now be holding both cookies. Let the child eat the cookies. | "Are these the same?" (Wait for response.)<br>"Yes, these are the same. The cookies feel the same, and they even taste the same." |

# G.P.1

## Exercise B

| | |
|---|---|
| Have the child sit comfortably at a table. Place one orange and one tablespoon on the table in front of the child. | "Here are some things on the table for you to feel." |
| Hand the second tablespoon to the child. | "This is another object for you. I'd like you to find something on the table that is different from this." (Wait for response.) |
| Put the orange that is on the table into the child's hands, if necessary. The child should now be holding a tablespoon and an orange. | "These are different." |
| Take the orange from the child and hand the child the tablespoon from the table. The child should now be holding both tablespoons. | "Are these different?" (Wait for response.)<br>"No, these are not different. They are the same." |
| Remove all three objects, then place one dinner plate and one cotton ball on the table in front of the child. | "Here are some new things on the table for you to feel." |

one orange
two tablespoons
one dinner plate
two cotton balls

(continued)

# G.P.1
## Exercise B
(continued)

| | |
|---|---|
| Hand the second cotton ball to the child. | "This is another object for you. I'd like you to find something on the table that is different from this." (Wait for response.) |
| Put the dinner plate that is on the table into the child's hands if necessary. The child should now be holding a cotton ball and a dinner plate. | "These are different." |
| Take the dinner plate from the child and hand the child the cotton ball from the table. The child should now be holding both cotton balls. | "Are these different?" (Wait for response.)<br>"No, these are not different. They are the same." |

# G.P.1

## Exercise C

VII

SAME/DIFFERENT

| | |
|---|---|
| Have the child sit comfortably at a table. | "Let's play a guessing game." |
| Place one cookie and one paper cup on the table in front of the child. | "Here are some things on the table for you to feel." |
| Hand the child the second paper cup. Help the child only if necessary. | "This is another object for you. I'd like you to find something on the table that is different from this." (Wait for response.) |
| Remove the three objects, then place one envelope and one tablespoon on the table in front of the child. | "Here are some more things on the table for you to feel." |
| Hand the child the second tablespoon. Help the child only if necessary. | "This is another object for you. I'd like you to find something on the table that is the same as this." (Wait for response.) |
| Remove the three objects, then place one marble and one spool of thread on the table in front of the child. | "Here are some more things on the table." |

(continued)

- one square cookie
- two identical paper cups
- one legal-size envelope
- two tablespoons
- one spool of thread
- two identical marbles
- one orange
- two cotton balls

## G.P. 1

### Exercise C

(continued)

| | |
|---|---|
| Hand the child the second marble. Help the child only if necessary. | "This is another object for you. I'd like you to find something on the table that is different from this." (Wait for response.) |
| Remove all three objects, then place one orange and one cotton ball on the table in front of the child. | "Ready for the last part of the game? Here are some things on the table for you to feel." |
| Hand the child the second cotton ball. Help the child only if necessary. | "This is another object for you. I'd like you to find something on the table that is the same as this." (Wait for response.) |

The child should be able to choose the specified objects in all four activities in Exercise C without help from the teacher.

If the child is unable to choose the specified objects in all four trials, review the SAME-DIFFERENT Experiential Exercises and repeat Guided Presentation 1.

# Guided Presentation 2

**OBJECTIVE:** The child will be able to state whether specific pairs of objects are the same or different.

**PURPOSE:** These exercises are designed to help the child learn to verbally identify objects as being the same or different while making increasingly finer perceptual discriminations as the attributes of the paired objects become more alike.

**MATERIALS:**

Exercise A
two identical toothbrushes
one quarter
one child's shoe with a shoelace

Exercise B
two square soda crackers
one square slice of bread
one square cookie

Exercise C
one index card (5 inches by 8 inches)
one small paper plate

(continued)

**MATERIALS:** (continued)

Exercise C (continued)

two identical washcloths
one tennis ball
one unwrapped bar of soap
two identical children's socks

# G.P.2

## Exercise A

| | |
|---|---|
| Hand the child a toothbrush. | "Here is a toothbrush." |
| Hand the child the quarter. | "I'm going to give you something, and I'd like you to tell me if it's the same as the toothbrush, or if is different from the toothbrush." |
| Touch the toothbrush and the quarter that are in the child's hands. | "Are these the same, or are these different?" (Wait for response.) |
| Help the child feel the parts of the objects as you discuss them. | "They're different. A toothbrush is long, and it has a handle and a brush. You use it to brush your teeth. This is a quarter. It is round like a circle, and you use it to buy things at the store. They're different." |
| Take the quarter from the child. Then hand the child a second toothbrush. The child should now be holding the two toothbrushes. | "Here is another object. I'd like you to tell me if it's the same as the toothbrush, or if it's different from the toothbrush." |

two identical toothbrushes
one quarter
one child's shoe with a shoelace

(continued)

# G.P.2

## Exercise A

(continued)

| | |
|---|---|
| Touch the two objects that are in the child's hands. | "Are these the same, or are these different?" (Wait for response.) |
| Help the child feel the parts as you discuss them. | "They're the same. Both have long handles and brushes. You use them to brush your teeth. They're both toothbrushes, and they're the same." |
| Take one toothbrush from the child. Then hand the child the shoe. The child should now be holding the toothbrush and the shoe. | "Here's something else. I'd like you to tell me if it's the same as the toothbrush, or if it's different from the toothbrush." |
| Touch the two objects that are in the child's hands. | "Are these the same, or are these different?" (Wait for response.) |
| Help the child feel the parts as you discuss them. | "They're different. This is a shoe. It goes on your foot and protects your foot. It has a sole and a shoelace and a tongue. Can you brush your teeth with a shoe?" (Wait for response.)<br>"No. Isn't that silly! It wouldn't taste very good! They're different." |

# G.P.2

## Exercise B

| | |
|---|---|
| Hand the child a soda cracker. | "Here is a cracker." |
| Hand the child the slice of bread. The child should now be holding the cracker and the bread. | "I'm going to give you something, and I'd like you to tell me if it's the same as the cracker, or if it's different from the cracker." |
| Touch the two objects that are in the child's hands. | "Are these the same, or are these different?" (Wait for response.) |
| Help the child feel the parts of the objects as you discuss them and perform the directed activities. | "They're different. This is a slice of bread. The bread has four sides." (Count them with the child.) "And it has four corners." (Count them with the child.) "It is made of flour, and you can eat it. But it is bigger than the cracker and softer than the cracker. It's so soft that you can poke a hole through it with your finger. Try it. Now try with the cracker. They're different." |
| Take the bread from the child. Then hand the child the second cracker. The child should now be holding the two crackers. | "Here's something else. I'd like you to tell me if it's the same as the cracker or if it's different from the cracker." |

two square soda crackers

one square slice of bread

one square cookie

(continued)

# G.P.2

## Exercise B

(continued)

| | |
|---|---|
| Touch the two objects that are in the child's hands. | "Are these the same, or are these different?" (Wait for response.) |
| Help the child feel the parts of the crackers as you name them. | "They're the same. Both have four sides." (Count them with the child.) "And both have four corners." (Count them with the child.) "They're the same size, and they're both hard. Both are made of flour and are good to eat. They're both crackers, and they're the same." |
| Take one cracker from the child. Then hand the child the cookie. The child should now be holding the cracker and the cookie. | "Here's something else. I'd like you to tell me if it's the same as the cracker, or if it's different from the cracker. |
| Touch the two objects that are in the child's hands. | "Are these the same, or are these different?" (Wait for response.) |
| Help the child feel the parts of the objects as you discuss them and perform the directed activities. | "They're different. This is a cookie. The cracker and the cookie have four sides and four corners." (Count the sides and corners with the child.) |

(continued)

# G.P.2

"They're both made of flour, and they're good to eat. But the cracker is (name bigger or smaller) than the cookie, and it tastes very different. Taste the cracker." (Wait for response.)

"Now taste the cookie." (Wait for response.)

"The cookie is very sweet, but the cracker is not sweet. They're different."

"If you'd like, you can eat the cookie and the cracker."

**VII**

**SAME/DIFFERENT**

# G.P.2

## Exercise C

**one index card**
**one small paper plate**
**two identical washcloths**
**one tennis ball**
**one unwrapped bar of soap**
**two identical children's socks**

| | |
|---|---|
| | "Let's play a guessing game again." |
| Hand one index card and one paper plate to the child. | "Here are some things for you to feel. Are these the same, or are these different?" (Wait for response.) |
| If the child responds incorrectly, compare the characteristics and functions of the objects for the child. | "They're different." |
| Take the two objects from the child. Then hand the child the two washcloths. | "Here are some more things for you to feel. Are these the same, or are these different?" (Wait for response.) |
| If the child responds incorrectly, discuss the characteristics and functions of the washcloths with the child. | "They're the same." |
| Take the two washcloths from the child. Then hand the child the tennis ball and the bar of soap. | "Here are some more things for you to feel. Are these the same, or are these different?" (Wait for response.) |

(continued)

3?

# G.P.2

| | |
|---|---|
| If the child responds incorrectly, compare the characteristics and functions of the ball and the soap with the child. | "They're different." |
| Take the objects from the child. Then hand the child the two socks. | "Here are more things to feel. Are these the same, or are these different?" (Wait for response.) |
| If the child responds incorrectly, discuss the characteristics and functions of the socks with the child. | "They're the same." |

The child should be able to state correctly whether the pairs of objects are the same or different in all four activities in Exercise C without help from the teacher.

If the child cannot accurately state that the paired objects are the same or different, review the SAME-DIFFERENT Experiential Exercises and Guided Presentation 1; repeat Guided Presentation 2.

# Guided Presentation 3

**OBJECTIVE:** The child will be able to select the same or different objects from a group of objects presented by the teacher.

**PURPOSE:** These exercises will help the child learn to apply same and different to a group of objects and to establish his or her own criteria on which to base selection decisions.

**MATERIALS:**

Exercise A
two cotton balls
one spool of thread
three identical paper cups
one sponge

Exercise B
two identical paper plates
one napkin
two apples
one banana
two identical square or rectangular blocks
one tennis ball

(continued)

# G.P.3

**MATERIALS:** (continued)

Exercise C

two combs
one toothbrush
two teaspoons
one drinking straw
two standard envelopes (4 inches by 6 inches)
one 12-inch ruler

VII

SAME/DIFFERENT

# G.P.3

## Exercise A

two cotton balls
one spool of thread
three identical paper cups
one sponge

| | |
|---|---|
| Have the child sit comfortably at a table. Place the cotton balls and the spool of thread on the table in front of the child. | "Here are some things on the table for you to feel. Some are the same, and one is different. Let's find the things that are the same." |
| Place the child's hand on one of the cotton balls. | "Can you find something that is the same as this?" (Wait for response.) |
| Place the child's other hand on the second cotton ball. | "These are the same. They're both soft and fuzzy and light. They're both cotton balls." |
| Remove the cotton balls and spool of thread, then place the three cups and the sponge on the table in front of the child. | "Here are some more things on the table that are the same and something that is different. Let's find the things that are the same." |
| Place the child's hand on one of the paper cups. | "Can you find something that is the same as this?" (Wait for response.) |
| Place the child's other hand on a second paper cup. | "These are the same. They're both made of paper, and we drink from them. They're both paper cups." |

(continued)

# G.P.3

VII

SAME/DIFFERENT

| | |
|---|---|
| Guide the child's hand to the cups identified as the same. | "Can you find something else that is the same as these?" (Wait for response.) |
| Place the child's other hand on the third cup. | "These are the same. This is a cup too." |

VII

SAME/DIFFERENT

# G.P.3

## Exercise B

two identical paper plates
one napkin
two apples
one banana
two identical square or rectangular blocks
one tennis ball

| | |
|---|---|
| Have the child sit comfortably at the table. Place the two plates and the napkin on the table in front of the child. | "Here are some things on the table for you to feel. Some are the same and something is different. Let's find the thing that is different." |
| Guide the child's hand to each of the plates and let the child handle them. | "These are the same. They are plates. Can you find the thing that is different from the plates?" (Wait for response.) |
| Place the child's hand on the napkin. | "This is different from the plates. It's a napkin." |
| Remove the plates and napkin, then place the two apples and the banana on the table in front of the child. | "Here are more things on the table that are the same and something that is different. Let's find the thing that is different." |
| Guide the child's hand to each of the apples and let the child handle them. | "These are the same. They're apples. Can you find something that is different from the apples?" (Wait for response.) |
| Place the child's hand on the banana. | "This is different from the apples. It's a banana." |

(continued)

# G.P.3

| | |
|---|---|
| Remove the fruit, then place the two blocks and the ball in front of the child. | "Here are more things on the table that are the same and different. We'll find the thing that is different, again." |
| Guide the child's hand to the blocks and let the child handle them. | "These are the same. They're blocks. Can you find something that is different from the blocks?" (Wait for response.) |
| Place the child's hand on the ball. | "This is different from the blocks. It's a ball." |

VII

SAME/DIFFERENT

## G.P.3

## Exercise C

two combs
one toothbrush
two teaspoons
one drinking straw
two standard envelopes
one 12-inch ruler

Have the child sit comfortably at a table. Place the two combs and the toothbrush in front of the child, with the toothbrush in the middle. Help the child only if necessary.

"Ready for another guessing game? There are some things on the table for you to feel. Can you show me the things that are the same?" (Wait for response.)

---

Remove the objects, then place the two spoons and the straw in a row in front of the child, with the straw in the middle. Help the child only if necessary.

"Here are more things on the table to feel. Can you show me something that is different?" (Wait for response.)

---

Remove the objects, then place the two envelopes and the ruler in a row in front of the child, with the ruler at one end. Help the child only if necessary.

"Here are more things to feel. Can you show me the things that are the same?" (Wait for response.)

---

(continued)

# G.P. 3

Remove the objects, then place the two spoons and the toothbrush in a row in front of the child, with the toothbrush at one end. Help the child only if necessary.

"Here are more things on the table. Can you show me the one that is different?" (Wait for response.)

The child should be able to choose the specified object in all four activities in Exercise C without help from the teacher.

If the child is unable to select the specified objects in all four trials, review the SAME-DIFFERENT Experiential Exercises and Guided Presentations 1 and 2; repeat Guided Presentation 3.

# Posttest

**Materials**

- two identical pencils
- two identical napkins
- two identical rubber bands
- one index card
- two drinking straws
- one eraser

**Test** Have the child sit comfortably at a table for this posttest.

1a. Place one pencil and one napkin on the table in front of the child.

SAY: "Here are some things on the table for you to feel." (Hand the second napkin to the child.) "I'd like you to find something on the table that is the same as this."

b. Place the index card and one rubber band on the table in front of the child.

SAY: "Here are some things on the table for you to feel." (Hand the second rubber band to the child.) "I'd like you to find something on the table that is different from this."

c. Place one pencil and one drinking straw on the table in front of the child.

SAY: "Here are some things on the table for you to feel." (Hand the second drinking straw to the child.) "I'd like you to find something on the table that is exactly the same as this."

2a. Hand one drinking straw and the eraser to the child.

SAY: "Are these the same, or are these different?"

b. Hand the two rubber bands to the child.

SAY: "Are these the same, or are these different?"

c. Hand the index card and one napkin to the child.

SAY: "Are these exactly the same, or are these different?"

3a. Place two pencils and the index card on the table in front of the child.

SAY: "I'd like you to show me the things on the table that are the same."

b. Place two napkins and the index card on the table in front of the child.

SAY: "I'd like you to show me the thing on the table that is different."

c. Place two rubber bands and the eraser on the table in front of the child.

SAY: "I'd like you to show me the things on the table that are exactly the same."

If the child accurately responds to all of the above items, he or she has demonstrated an understanding of the concepts same and different.

VII

PART/WHOLE

# UNIT VII : RELATIONSHIPS

## LESSON 2 : PART/WHOLE

**VII**

**PART/WHOLE**

# Pretest

**Materials**

an empty ice cream cone
an old pair of sunglass frames without the glass

**Test**

1a. SAY: "I'd like you to name the parts of your body." (Wait for response. The child should name at least four body parts.)

b. SAY: "What whole thing do those parts make?"

c. SAY: "I'm going to name some parts of something. I'd like you to tell me what the whole thing is. Listen: teeth, a tongue, lips, gums, and a throat. I'll say them again." (Repeat the parts once.) "Can you tell me what the whole thing is called? Are these the parts of a hand, or are these the parts of a mouth?" (Wait for response.)

d. SAY: "What are the parts of a mouth?" (The child should name at least two parts.)

> If all four items are answered correctly, go on to Question 2.
>
> If one or more items are answered incorrectly, the child should concentrate on the PART-WHOLE Experiential Exercises and begin with Guided Presentation 1.

2a. SAY: "Can you name the parts of a bed?" (Wait for response. The child should name at least two of the following: mattress, pillow, blanket, sheets, legs or frame, bedspread.)

b. SAY: "What whole thing do those parts make?"

c. SAY: "I'm going to name some parts of something. I'd like you to tell me what the whole thing is: ceiling, walls, a floor, and a door. I'll say them again." (Repeat the parts once.) "Can you tell me what the whole thing is called? Are these the parts of a room, or are these the parts of a desk?" (Wait for response.)

d. SAY: "What are the parts of a room?" (The child should name at least three parts.)

If all four items are answered correctly, go on to Question 3.

If one or more items are answered incorrectly, the child should begin with Guided Presentation 2.

3a. Present the ice cream cone to the child.

SAY: "What part is missing?"

b. Present the sunglass frames to the child.

SAY: "What part is missing?"

If both items are answered correctly, go on to the next set of concepts.

If one or both items are answered incorrectly, begin with Guided Presentation 3.

# Experiential Exercises

In these exercises whole indicates a complete unit and part indicates an integral component of a unit which can be specified apart from that unit.

1. Have the child make a sandwich. Refer to parts that make a whole sandwich, such as the bread, meat, and lettuce.

2. Give the child a sandwich-style cookie. Have the child take the whole cookie apart and talk about the cream filling and the harder cookie sections as parts of the cookie.

3. When the child is riding a tricycle or bicycle, talk about the parts of the cycle that the child is manipulating (the pedals, the handlebars, the seat, the wheels). Talk about the purpose of each of the parts.

4. When the child is taking off or putting on shoes, talk about the parts of the shoes and the purposes of the parts (lace, buckles, soles).

# Experiential Exercises

5. Have the child open and close plastic containers. Name the lid and bowl and discuss their functions with the child.

6. If there is an animal in the classroom, let the child hold the animal and feel the parts of the animal. Talk about the function of the parts with the child.

7. As the child dresses or undresses, talk about the parts of various articles of clothing and their functions with the child.

# Guided Presentation 1

**OBJECTIVE:** The child will be able to recognize relationships between his or her body and its parts.

**PURPOSE:** These exercises will help the child gain an understanding of part-whole relationships in terms of his or her body. Before attempting the exercises, the child should know the names of the following body parts: hand, head, leg.

**MATERIALS:** None

# G.P.1
## Exercise A

| | |
|---|---|
| Place the child's hand in your hand. | "Let's look at your hand. Your whole hand is made of many parts. Let's name these parts." |
| First touch the parts of the hand as you name them. | "Your hand has fingers, a thumb, a palm, and nails. It also has knuckles." |
| Then help the child touch the parts with his or her other hand as you name them a second time. | "Your hand has fingers, a thumb, a palm, and nails. It also has knuckles." |
| Touch the fingers, the thumb, the palm, the nails, and the knuckles. Go slowly and repeat until the child is familiar with the parts of the hand. | "Now you name the parts of your hand as I touch them."<br>"What whole thing do these parts make?" |

# G.P.1

## Exercise B

| | |
|---|---|
| | "Let's look at your head. Your whole head is made of many parts. Let's name these parts." |
| First touch the parts of the child's head as you name them. | "Your head has hair, ears, eyebrows, eyes, a nose, a mouth, cheeks, and a chin." |
| Then help the child touch the parts as you name them a second time. | "Your head has hair, ears, eyebrows, eyes, a nose, a mouth, cheeks, and a chin." |
| Touch the hair, ears, eyebrows, eyes, nose, mouth, cheeks, and chin. Go slowly and repeat until the child is familiar with the parts of the head. | "Now you name the parts of your head as I touch them."<br>"What whole thing do these parts make?" |

# G.P.1

## Exercise C

| | |
|---|---|
| | "Let's look at your leg. Your whole leg is made of many parts. Let's name these parts." |
| First touch the parts of the leg as you name them. | "Your leg has a thigh, a knee, a calf, and a foot." |
| Then help the child touch the parts as you name them a second time. | "Your leg has a thigh, a knee, a calf, and a foot." |
| Touch the thigh, the knee, the calf, and the foot. Go slowly and repeat until the child is familiar with the parts of the leg. | "Now you name the parts of your leg as I touch them."<br>"What whole thing do these parts make?" |

# G.P.1

## Exercise D

| | |
|---|---|
| | "Now let's play a guessing game. I'm going to name some parts and you tell me what whole thing these parts make when you put them together." |
| Name the parts slowly. | "Get ready! A nose, a mouth, eyes, hair, ears, cheeks, and chin. I'll say them again." (Repeat the parts once.) "Guess what the parts make." |
| If the child doesn't respond correctly, name the parts again, but this time help the child touch the parts as you name them. Then ask the child what the parts make. | "The parts make a head. Feel your whole head. Your head is made of all those parts." |
| Name the parts slowly. | "Guess what these parts make: fingers, a thumb, a palm, nails, and knuckles. I'll say them again." (Repeat the parts once.) "What do the parts make?" |

(continued)

# G.P.1

## Exercise D
(continued)

| | |
|---|---|
| If the child doesn't respond correctly, name the parts again, but this time help the child touch the parts as you name them. Then ask the child what the parts make. | "The parts make a hand. Feel your whole hand. It is made of all those parts." |
| Name the parts slowly. | "Guess what these parts make: a thigh, a calf, a knee, and a foot. I'll say them again." (Repeat the parts once.) "What do the parts make?" |
| If the child doesn't respond correctly, name the parts again, but this time help the child touch the parts as you name them. Then ask the child what the parts make. | "The parts make a leg. Feel your whole leg. It is made of all those parts." |

The child should be able to name the whole from its parts in the three trials in Exercise D without help from the teacher.

If the child cannot name the whole from its parts in all three trials, review the PART-WHOLE Experiential Exercises and repeat Guided Presentation 1.

# Guided Presentation 2

**OBJECTIVE:** The child will be able to recognize relationships between objects and their parts.

**PURPOSE:** These exercises are designed to help the child gain an understanding of part-whole relationships in terms of objects in the environment.

**MATERIALS:**

Exercise A

a sweater that buttons down the middle and that fits the child

Exercise B

a child's chair

Exercise C

a dozen peanuts with shells intact

Exercise D

a braille or large-print book

(continued)

**MATERIALS:** (continued)

Exercise E

*a child's chair

*a braille or large-print book

*a child's sweater

a peanut that has been cracked open

# G.P.2

## Exercise A

VII

PART/WHOLE

| | |
|---|---|
| Help the child put on the sweater. | "Can you put on this sweater? The whole sweater has many parts. Let's name the parts." |
| Help the child touch the parts as you name them. | "The sweater has sleeves, a back, and a front. It has buttons and button holes." |
| Encourage the child to name the parts with you. | "Let's name the parts together. The sweater has sleeves, a back, and a front. It has buttons and button holes." |
| Touch the sleeves, the back, the front, the buttons, and the button holes of the sweater with the child. Go slowly and repeat until the child is familiar with the parts of the sweater. | "Now you name the parts of the whole sweater as we touch them." (Wait for response.) |

a sweater

# G.P.2
## Exercise B

a child's chair

| | |
|---|---|
| Present the chair to the child. | "Here is a chair. Feel all the parts of the chair. The whole chair has many parts. Let's name the parts." |
| Help the child feel the parts as you name them. | "A chair has a back, a seat, and legs." |
| Encourage the child to name the parts with you. | "Let's name the parts again. A chair has a back, a seat, and legs." |
| Touch the back, the seat, and the legs of the chair with the child. Go slowly and repeat until the child is familiar with the parts of a chair. | "Now you name the parts of the whole chair as we touch them." (Wait for response.) |

# G.P.2

## Exercise C

VII

PART/WHOLE

| | |
|---|---|
| Present a peanut to the child. | "Here is a whole peanut. You have to crack open the shell of the peanut to eat the nuts that are inside." |
| Help the child crack the shell. | "Let's open the peanut. We'll press on its shell to crack it." |
| Let the child eat the nuts. | "Now feel the nuts that are in the shell. You can eat them if you'd like."<br>"What are the parts of the whole peanut?" (Wait for response.)<br>"The whole peanut is made of a shell and nuts." |
| Help the child crack the peanut, then help the child name the parts if the child doesn't know them. Repeat the procedure until the child knows the parts of the peanut. Then let the child eat the nuts. | "Crack open another whole peanut. What are the parts?" (Wait for response.) |

a dozen unshelled peanuts

# G.P.2
## Exercise D

a braille or large-print book

| | |
|---|---|
| Present the book to the child. | "Here is a book. A whole book is made of parts also. Let's name the parts." |
| Touch the parts of the book with the child as you name them. | "A book has a cover, pages, and words (and pictures)." |
| Encourage the child to name the parts with you. | "Let's name the parts again. A book has a cover, pages, and words (and pictures)." |
| Touch the cover, the pages, and the words (and pictures) with the child. Go slowly and repeat until the child is familiar with the parts of the book. | "What are the parts of a book?" (Wait for response.) |

# G.P.2

## Exercise E

For this exercise, a response is considered acceptable if the child names the expected whole object or an unexpected one that logically follows from the given parts.

"It's time for another guessing game. I'm going to name some parts and you tell me what these parts make when you put them all together."

Name the parts slowly.

"Get ready! A back, a seat, and legs. I'll say them again." (Repeat the parts once.) "Guess what whole thing these parts make."

- a child's chair
- a braille or large-print book
- a child's sweater
- a peanut that has been cracked open

If the child doesn't respond correctly, name the parts of the chair again, but this time help the child touch the parts as you name them. Then ask the child what whole thing the parts make.

"The parts make a whole chair. Feel the whole chair. It is made of those parts."

Name the parts slowly.

"Guess what whole these parts make: a cover, pages, and words. I'll say them again." (Repeat the parts once.) "What whole thing do the parts make?"

(continued)

# G.P.2

## Exercise E

(continued)

If the child doesn't respond correctly, name the parts again, but this time help the child touch the parts of the book as you name them. Then ask the child what whole thing the parts make.

"The parts make a whole book. Feel the whole book. It is made of all those parts."

---

Name the parts slowly.

"Guess what whole thing these parts make: sleeves, a back, a front, buttons, button holes. I'll say them again." (Repeat the parts once.) "What whole thing do the parts make?"

---

If the child doesn't respond correctly, name the parts again, but this time help the child touch the parts as you name them. Then ask the child what whole thing the parts make.

"The parts make a whole sweater. Feel the whole sweater. It is made of those parts."

---

Name the parts slowly.

"What whole thing is made of a shell and nuts? I'll say it again: a shell and nuts. What whole thing do those parts make?"

---

(continued)

# G.P.2

If the child doesn't respond correctly, name the parts again, but this time help the child touch the parts of the peanut as you name them. Then ask the child what whole thing the parts make.

"The parts make a whole peanut. Feel the whole peanut. It is made of those parts."

The child should be able to name the whole objects from their parts without touching the parts in at least three of the four trials in Exercise E.

If the child cannot name the whole from its parts in at least three out of the four trials, review the PART-WHOLE Experiential Exercises and Guided Presentation 1; repeat Guided Presentation 2.

# Guided Presentation 3

**OBJECTIVE:** The child will be able to recognize that a part is missing from an object presented by the teacher.

**PURPOSE:** These exercises will enable the child to understand that a whole object is not complete without all of its parts and that often the object cannot adequately perform its function without a certain part or parts.

**MATERIALS:**

Exercise A

a child's long-sleeved shirt that buttons down the middle

a child's long-sleeved shirt that buttons down the middle with one sleeve cut off at the shoulder

a child's long-sleeved shirt that buttons down the middle with the buttons missing

Exercise B

a comb

a comb with the teeth cut off

a toothbrush

a toothbrush with the bristles cut off

(continued)

**MATERIALS:** (continued)

Exercise B (continued)

a child's lace-type shoe with a shoelace

a child's lace-type shoe without a shoelace

a sandwich with one slice of cheese

two plain slices of bread identical to the bread used in the sandwich (i.e., an empty sandwich)

Exercise C

a child's sweater that buttons down the middle

a child's sweater that buttons down the middle with the buttons missing

a peanut in an intact shell

a peanut shell cracked open with no nut inside

an empty loose-leaf binder

some loose-leaf paper for the binder

# G.P.3

## Exercise A

a child's long-sleeved shirt that buttons down the middle

a child's long-sleeved shirt that buttons down the middle with one sleeve cut off

a child's long-sleeved shirt with buttons missing

| | |
|---|---|
| Present the intact shirt to the child. | "Here is a whole shirt. Feel all the parts of the shirt." |
| Help the child put on the shirt. | "Now put on the shirt. Feel the parts of the shirt: the back, the front, the sleeves, the buttons, and the button holes." |
| Help the child remove the intact shirt and put on the shirt without a sleeve. Help the child feel the parts if necessary. | "Now put on this shirt. Feel all the parts." (Wait for response.)<br>"Is this a whole shirt?" (Wait for response.)<br>"No, one part is missing. Do you know what part is missing?" (Wait for response.) |
| Place the child's hand on the sleeveless arm and on the arm with a sleeve. | "One of your arms isn't covered with a sleeve. A sleeve is the part missing from the shirt." |
| Help the child remove the shirt without a sleeve and then put on the shirt without buttons. Help the child feel all the parts if necessary. | "Here is another shirt. Put this shirt on and feel all the parts." (Wait for response.)<br>"Is this a whole shirt?" (Wait for response.) |

(continued)

## G.P.3

| | |
|---|---|
| | "No, some parts are missing. Do you know the parts that are missing?" (Wait for response.) |
| Help the child feel the places where the buttons were removed. Let the child try to close the shirt and demonstrate how it always stays open without buttons. | "The buttons are the parts that are missing. You can't close this shirt without buttons. Try to close the shirt!" |

# G.P.3

## Exercise B

a comb
a comb with the teeth cut off
a toothbrush
a toothbrush with the bristles cut off
a child's lace-type shoe with a shoelace
a child's lace-type shoe without a shoelace
a sandwich with one slice of cheese
two plain slices of bread

| | |
|---|---|
| Present the intact comb to the child. Let the child examine the comb, and help the child feel the teeth of the comb. Then help the child run the comb through his or her hair once or twice. | "Here is a comb. Did you know that a comb has teeth? Feel the teeth of the comb. Now comb your hair." (Wait for response.) |
| Present the comb with the teeth cut off to the child. | "Now let's play a guessing game. Here is another comb. Feel the comb." (Wait for response.)<br>"Is this a whole comb?" (Wait for response.) "No, some parts are missing. Do you know what parts are missing?" (Wait for response.) |
| Help the child examine the place on the comb where the teeth should be. If necessary let the child examine the intact comb also. | "The teeth that go through your hair are the parts that are missing." |
| Present the intact toothbrush to the child. Let the child examine the toothbrush, and help him or her feel the parts as you name them. | "Here is a toothbrush. A toothbrush has a handle and it has a brush. Feel all the parts of the toothbrush." (Wait for response.) |

(continued)

# G.P.3

| | |
|---|---|
| Present the toothbrush with the bristles cut off to the child. | "Here is another toothbrush. Feel the toothbrush carefully." (Wait for response.)<br>"Is this a whole toothbrush?" (Wait for response.)<br>"No, a part is missing. Do you know what part is missing?" (Wait for response.) |
| Help the child examine the place on the handle where the brush should be. If necessary, let the child examine the intact toothbrush also. | "The brush is the part that's missing. You can't brush your teeth without the brush." |
| Present the intact shoe to the child. Help the child feel the parts as you name them. | "Here is a whole shoe. Feel all the parts of the shoe: the upper part, the sole, and the shoelace." (Wait for response.) |
| Present the shoe without a shoelace to the child. | "Now let's play a guessing game again. Here is another shoe. Feel all the parts of the shoe." (Wait for response.)<br>"Is this a whole shoe?" (Wait for response.) |

(continued)

# G.P.3

## Exercise B

(continued)

| | |
|---|---|
| | "No, one part is missing. Do you know what part is missing?" (Wait for response.) |
| Help the child examine the place where the shoelace should be. If necessary, let the child examine the intact shoe also. | "It's the part that you use to tie the shoe. The shoelace is the part that's missing." |
| Present the cheese sandwich to the child. Let the child examine the sandwich and help him or her feel the parts as you name them. | "Here is a sandwich. Feel all the parts of the sandwich: the two slices of bread and the cheese." (Wait for response.) |
| Present the two stacked slices of bread to the child. | "Here is another sandwich. Feel the sandwich carefully and look inside." (Wait for response.)<br>"Is this a whole sandwich?" (Wait for response.)<br>"No, a part is missing. Do you know what part is missing?" (Wait for response.) |

(continued)

# G.P.3

Help the child examine the place where the cheese should be. If necessary, let the child examine the intact sandwich also.

"The cheese is the part that is missing. A sandwich isn't a whole sandwich without something inside."

# G.P.3
## Exercise C

a child's sweater
a child's sweater with buttons missing
a peanut a peanut
a cracked peanut
an empty loose
loose-leaf paper

| | |
|---|---|
| Help the child put on the sweater without buttons. | "Put on this sweater. Is this a whole sweater?" (Wait for response.)<br>"No, some parts are missing." |
| If the child cannot answer this question, put the intact sweater on the child and review its parts, then repeat the exercise with the sweater without buttons. | What parts are missing?" (Wait for response.)<br>"The buttons are missing. You can't close a sweater without buttons." |
| Present the peanut shell to the child. | "Is this a whole peanut?" (Wait for response.)<br>"No. a part is missing." |
| If the child cannot answer this question, present the intact peanut to the child and review its parts, then repeat the exercise with the peanut shell. | "What part is missing from this peanut?" (Wait for response.)<br>"The nut is the part that is missing. We eat the nut." |
| Present the empty loose-leaf binder to the child. | "Is this a whole book?" (Wait for response.)<br>"No, some parts are missing." |

(continued)

# G.P.3

If the child cannot answer this question, present the loose-leaf binder with paper to the child and review its parts, then repeat the exercise with the loose-leaf binder without paper.

"What parts are missing from this book?" (Wait for response.)

"The pages are the parts that are missing. We can't read a book unless it has pages."

The child should be able to recognize that a part is missing and name the missing part for all three objects in Exercise C without examining the intact objects.

If the child cannot recognize that a part is missing and name the missing part for the three objects, review the PART-WHOLE Experiential Exercises and Guided Presentations 1 and 2; repeat Guided Presentation 3.

# Posttest

**Materials**

an empty ice cream cone
an old pair of sunglass frames without the glass

**Test**

1a. SAY: "I'd like you to name the parts of your body." (Wait for response. The child should name at least four body parts.)

b. SAY: "What whole thing do those parts make?"

c. SAY: "I'm going to name some parts of something. I'd like you to tell me what the whole thing is. Listen: teeth, a tongue, lips, gums, and a throat. I'll say them again." (Repeat the parts once.) "Can you tell me what the whole thing is called? Are these the parts of a hand, or are these the parts of a mouth?" (Wait for response.)

d. SAY: "What are the parts of a mouth?" (The child should name at least two parts.)

2a. SAY: "Can you name parts of a bed?" (Wait for response. The child should name at least two of the following: mattress, pillow, blanket, sheets, legs or frame, bedspread.)

b. SAY: "What whole thing do those parts make?"

c. SAY: "I'm going to name some parts of something. I'd like you to tell me what the whole is: ceiling, walls, a floor, and a door. I'll say them again." (Repeat the parts once.) "Can you tell me what the whole thing is called? Are these the parts of a room, or are these the parts of a desk?" (Wait for response.)

d. SAY: "What are the parts of a room?" (The child should name at least three parts.)

3a. Present the ice cream cone to the child.
SAY: "What part is missing?"

b. Present the sunglass frames to the child.
SAY: "What part is missing?"

If the child accurately responds to all of the above items, he or she has demonstrated an understanding of the concepts part and whole.

VIII

FIRST/LAST

# UNIT VIII : TIME

## LESSON 1 : FIRST/LAST

# Pretest

**Materials**

- a quarter
- a cotton ball
- a wooden bead
- a paper clip

**Test**

1a. Let the child handle each object as you name it.

SAY: "Here are some things that we're going to use: a quarter, a cotton ball, a bead, and a paper clip."

Prepare to use the quarter and the cotton ball.

SAY: "I'm going to give you two things. Tell me what I give you first." (Hand the child the quarter, then the cotton ball.)

b. Prepare to use the wooden bead and the paper clip.

SAY: "I'm going to give you two things. Tell me what I give you first." (Hand the child the wooden bead, then the paper clip.)

c. SAY: "I'm going to whistle" (whistle several notes), "and I'm going to clap" (clap your hands several times). "Tell me what I do first. Listen." (Clap, then whistle.)

d. SAY: "Now tell me what I do first. Listen." (Whistle, then clap.)

> If all four items are answered correctly, go on to Question 2.
>
> If one or more items are answered incorrectly, the child should concentrate on the FIRST-LAST Experiential Exercises and begin with Guided Presentation 1.

2a. Prepare to use the wooden bead and the quarter.

SAY: "I'm going to give you two things. Tell me what I give you last." (Hand the child the wooden bead, then the quarter.)

b. Prepare to use the paper clip and the cotton ball.

SAY: "I'm going to give you two things. Tell me what I give you last." (Hand the child the paper clip, then the cotton ball.)

c. SAY: "I'm going to whistle" (whistle several notes), "and I'm going to clap" (clap your hands several times). "Tell me what I do last. Listen." (Clap, then whistle.)

d. SAY: "Now tell me what I do last. Listen." (Whistle, then clap.)

> If all four items are answered correctly, go on to Question 3.
>
> If one or more items are answered incorrectly, the child should begin with Guided Presentation 2.

3a. Prepare to use the wooden bead, the cotton ball, and the paper clip.

SAY: "I'm going to give you some things. Do I give you the bead first, or do I give you the bead last?" (Hand the child the wooden bead, then the cotton ball, then the paper clip.) "Did I give you the bead first, or did I give you the bead last?"

b. SAY: "I'm going to give you some things again. Do I give you the cotton ball first, or do I give you the cotton ball last?" (Hand the child the paper clip, then the wooden bead, then the cotton ball.) "Did I give you the cotton ball first, or did I give you the cotton ball last?"

c. SAY: "I'm going to whistle" (whistle several notes), "clap" (clap your hands several times), "and tap" (tap the wall, a table, or a chair several times). "Do I clap first, or do I clap last? Listen." (Clap, then tap, then whistle.) "Did I clap first, or did I clap last?"

d. SAY: "Listen again. Do I tap first, or do I tap last?" (Whistle, then clap, then tap.) "Did I tap first, or did I tap last?"

If all four items are answered correctly, the child can go on to the next set of concepts.

If one or more items are answered incorrectly, the child should begin with Guided Presentation 3.

# Experiential Exercises

VIII

FIRST/LAST

For these exercises, first is defined as preceding all other events in a temporal series, last is defined as coming after all other events in a temporal series.

1. Discuss sequential activities during the course of the school day, asking the child what he or she does first and what he or she does last.

2. When listening to a favorite long-playing record, ask the child what song comes first and what song comes last.

3. When playing a game with a small group of children, assign the children their turns using the terms first and last; e.g., "Billy is first, then Mary, then Jill, and Mark is last."

4. If the child is the first or last child in the room at the beginning or end of the day or during recess, use the terms first and last to describe the situation to the child.

5. Ask the school janitor to talk to your students and explain what he or she does as the first person in the school in the morning or as the last person in the school in the evening.

# Experiential Exercises

6. Ask the child to describe events at home in which someone is first or last, such as the first person up in the morning, the first person to watch TV, the last person to take a bath, etc.

7. When they are in a small group, give each child a different rhythm instrument. Have them play the instruments in a specific order, using the terms first and last to describe the sequence.

# Guided Presentation 1

**OBJECTIVE:** The child will be able to indicate when a given action or sound occurs first in a series of two events.

**PURPOSE:** These exercises will enable the child to understand the concept of first in relation to a temporal order of actions and auditory stimuli. The child should know the names of the following body parts for these exercises:

head leg nose ear
hand arm chin

**MATERIALS:** Exercise A
none

Exercise B
a hand bell or jingle bells
a drum and a drumstick

Exercise C
none

Exercise D
keys on a key chain
two wooden blocks

# G.P.1
## Exercise A

| | |
|---|---|
| Tap the child once on the top of the head, then tap the child once on the hand, as you talk. | "I'm going to tap you on different parts of your body."<br>"First, I tap you on the head, then I tap you on the hand." |
| Tap the child once on the top of the head, then tap the child once on the hand. | "Tell me which part of your body I tap first." (Wait for response.) |
| Tap the child once on the head. | "First, I tapped you on the head, like this." |
| Tap the child once on the hand, then tap the child once on the top of the head. | "I'm going to change what I do. Now tell me which part of your body I tap first." (Wait for response.) |
| Tap the child once on the hand. | "First, I tapped you on the hand, like this." |
| Tap the child once on the leg, then tap the child once on the arm. | "I'm going to change what I do. Tell me which part of your body I tap first." (Wait for response.) |
| Tap the child once on the leg. | "First, I tapped you on the leg, like this." |

# G.P.1

## Exercise B

VIII

FIRST/LAST

| | |
|---|---|
| Present the bell and the drum with the drumstick to the child. Help the child perform the indicated activities. | "Here are a bell and a drum and a drumstick. Let's shake the bell to make it ring." (Wait for response.)<br>"Now let's beat the drum with the stick." (Wait for response.) |
| | "I'm going to ring the bell first, then I'm going to beat the drum. Listen." |
| Ring the bell once, then beat the drum once. | "What did I do first?" (Wait for response.) |
| Ring the bell once. | "First, I rang the bell like this." |
| | "Now I'm going to change what I do. I'm going to beat the drum first, then I'm going to ring the bell. Listen." |
| Beat the drum once, then ring the bell once. | "What did I do first?" (Wait for response.) |
| Beat the drum once. | "First, I beat the drum like this." |

a hand bell or jingle bells

a drum and a drumstick

# G.P.1

## Exercise C

"I'm going to make some animal sounds. Listen! A cow goes 'moo', a duck goes 'quack'. Now you make the sounds with me. A cow goes 'moo'." (Wait for response.)

"A duck goes 'quack'." (Wait for response.)

---

"Tell me what sound I make first. Listen: 'moo', 'quack'. What sound did I make first?" (Wait for response.)

"First, I said 'moo'."

---

"Now what sound do I make first? Listen: 'quack', 'moo'. What sound did I make first?" (Wait for response.)

"First, I said 'quack'."

---

"Let's make some more animal sounds. Listen: A cat goes 'meow', a bird goes 'tweet'. Now you make the sounds with me. A cat goes 'meow'." (Wait for response.)

"A bird goes 'tweet'." (Wait for response.)

---

(continued)

# G.P.1

**VIII**

FIRST/LAST

"Tell me what sound I make first. Listen: 'meow', 'tweet'. What sound did I make first?" (Wait for response.)

"First, I said 'meow'."

---

"Now what sound do I make first? Listen: 'tweet', 'meow'. What sound did I make first?" (Wait for response.)

"First, I said 'tweet'."

# G.P.1
## Exercise D

keys on a key chain
two wooden blocks

| | |
|---|---|
| Tap the child's nose once, then tap the child's ear once. | "Tell me which part of your body I tap first." (Wait for response.)<br>"First, I tapped your nose." |
| Tap the child's chin once, then tap the child's ear once. | "Now what do I tap first?" (Wait for response.)<br>"First, I tapped your chin." |
| Present the keys and the two wooden blocks to the child. Jingle the keys and clap the blocks as appropriate. | "Here are some keys on a key chain and some blocks. Listen to the keys jingle and listen to the sound of the blocks when I clap them together." |
| Jingle the keys a second or two, then clap the blocks once. | "What did I do first?" (Wait for response.)<br>"First, I jangled the keys." |
| Clap the blocks once, then jingle the keys a second or two. | "Now, what do I do first?" (Wait for response.)<br>"First, I clapped the blocks." |

(continued)

# G.P. 1

"Now listen to some animal sounds. A dog goes 'woof' and a horse goes 'neigh'. Say them with me. A dog goes 'woof'." (Wait for response.)

"A horse goes 'neigh'." (Wait for response.)

"Tell me what I say first. Listen: 'woof', 'neigh'. What did I say first?" (Wait for response.)

"First, I said 'woof'."

"Now tell me what I say first. Listen: 'neigh', 'woof'. What did I say first?" (Wait for response.)

"First, I said 'neigh'."

The child should be able to correctly identify what came first in five of the six sequences in Exercise D without help from the teacher.

If the child is unable to correctly identify the first event in five of the six sequences, review the FIRST-LAST Experiential Exercises and repeat Guided Presentation 1.

VIII

FIRST/LAST

# Guided Presentation 2

**OBJECTIVE:** The child will be able to indicate when a given action or sound occurs last in a series of two events.

**PURPOSE:** These exercises will enable the child to understand the concept of last in relation to a temporal order of actions and auditory stimuli. The child should know the names of the following body parts for these exercises.

head leg nose cheek
hand arm ear

**MATERIALS:**

Exercise A
none

Exercise B
a hand bell or jingle bells
a drum and a drumstick

Exercise C
none

Exercise D
keys on a key chain
two wooden blocks

# G.P.2

## Exercise A

| | |
|---|---|
| Tap the child once on the head and then once on the hand as you talk. | "I'm going to tap you on different parts of your body."<br>"I tap you on the head, then I tap you on the hand. I tapped your hand last." |
| Tap the child once on the top of the head, then once on the hand. | "Tell me which part of your body I tap last." (Wait for response.) |
| Tap the child once on the hand. | "I tapped you on the hand last, like this." |
| Tap the child once on the hand, then once on the top of the head. | "I'm going to change what I do. Now tell me which part of your body I tap last." (Wait for response.) |
| Tap the child once on the head. | "I tapped you on the head last, like this." |
| Tap the child once on the leg, then tap the child once on the arm. | "I'm going to change what I do. Tell me which part of your body I tap last." (Wait for response.) |
| Tap the child once on the arm. | "I tapped you on the arm last, like this." |

# G.P.2
## Exercise B

a hand bell or jingle bells

a drum and a drumstick

| | |
|---|---|
| Present the bells and the drum with drumstick to the child. Help the child perform the indicated activities. | "Here are a bell and a drum and drumstick. Let's shake the bell to make it ring." (Wait for response.)<br>"Now let's beat the drum with the drumstick." (Wait for response.)<br>"I'm going to ring the bell, then beat the drum. I'll beat the drum last. Listen." |
| Ring the bell once, then beat the drum once. | "What did I do last?" (Wait for response.) |
| Beat the drum once. | "I beat the drum last, like this." |
| | "Now I'm going to change what I do. I'm going to beat the drum and then ring the bell. I ring the bell last. Listen." |
| Beat the drum once, then ring the bell once. | "What did I do last?" (Wait for response.) |
| Ring the bell once. | "I rang the bell last, like this." |

(continued)

## G.P.2

| | |
|---|---|
| | "Now I'm going to change what I do. I'm going to ring the bell, then beat the drum last. Listen." |
| Ring the bell once, then beat the drum once. | "What did I do last?" (Wait for response.) |
| Beat the drum once. | "I beat the drum last, like this." |

# G.P.2

## Exercise C

"I'm going to make some animal sounds. Listen: A cow goes 'moo', a duck goes 'quack'. Now you make the sounds with me. A cow goes 'moo'." (Wait for response.)

"A duck goes 'quack'." (Wait for response.)

"Tell me what sound I make last. Listen: 'Moo', 'quack'. What sound did I make last?" (Wait for response.)

"I said 'quack' last."

"Now what sound do I make last? Listen: 'quack', 'moo'. What sound did I make last?" (Wait for response.)

"I said 'moo' last."

"Let's make some more animal sounds. Listen: A cat goes 'meow', a bird goes 'tweet'. Now you make the sounds with me. A cat goes 'meow'." (Wait for response.)

"A bird goes 'tweet'." (Wait for response.)

(continued)

"Tell me what sound I make last. Listen: 'meow', 'tweet'. What sound did I make last?" (Wait for response.) "I said 'tweet' last."

---

"Now what sound do I make last? Listen: 'tweet', 'meow'. What sound did I make last?" (Wait for response.)

"I said 'meow' last."

## G.P.2
## Exercise D

keys on a key chain
two wooden blocks

| | |
|---|---|
| Tap the child's nose once, then tap the child's ear once. | "Tell me which part of your body I tap last." (Wait for response.)<br>"I tapped your ear last." |
| Tap the child's ear once, then tap the child's cheek once. | "Now what do I tap last?" (Wait for response.)<br>"I tapped your cheek last." |
| Present the keys and two wooden blocks to the child. Jingle the keys and clap the blocks as appropriate. | "Here are some keys on a key chain and two blocks. Listen to the keys jingle and listen to the sound of the blocks when I clap them together." |
| Jingle the keys a second or two, then clap the blocks once. | "What did I do last?" (Wait for response.)<br>"I clapped the blocks last." |
| Clap the blocks once, then jingle the keys a second or two. | "Now, what did I do last?" (Wait for response.)<br>"I jingled the keys last." |
| | "Now listen to some animal sounds. A dog goes 'woof' and a horse goes 'neigh'. Say them with me. A dog goes 'woof'." (Wait for response.)<br>"A horse goes 'neigh'." (Wait for response.) |

# G.P.2

"Tell me what I say last. Listen: 'woof', 'neigh'. What did I say last?" (Wait for response.)

"I said 'neigh' last."

---

"Now tell me what I say last. Listen: 'neigh', 'woof'." What did I say last?" (Wait for response.)

"I said 'woof' last."

The child should be able to correctly identify what comes last in five of the six sequences in Exercise D without help from the teacher.

If the child is unable to correctly identify the last event in five of the six sequences, review the FIRST-LAST Experiential Exercises and Guided Presentation 1; repeat Guided Presentation 2.

# Guided Presentation 3

**OBJECTIVE:** The child will be able to indicate when a given action or sound occurs first or last in a series of three or more events.

**PURPOSE:** These exercises are designed to help the child understand first and last in more complex temporal series. The child should know the names of the following body parts for these exercises:

head
arm
hand
leg
chin
nose
ear

**MATERIALS:**

Exercise A

none

Exercise B

a hand bell or jingle bells
a drum and a drumstick
a jar half-filled with rice

Exercise C

none

Exercise D

keys on a key chain
two wooden blocks
two sandpaper squares (about 3 inches on a side)

# G.P.3

## Exercise A

| | |
|---|---|
| | "I'm going to tap you on different parts of your body." |
| Tap the child once on the head, then once on the hand, then once on the arm, as you talk. | "First, I tap you on your head, next I tap you on your hand, and I tap you on your arm last." |
| Tap the child once on the head, once on the hand, then once on the arm. | "Tell me which part of your body I tap first." (Wait for response.) |
| Tap the child once on the head. | "First, I tapped you on the head, like this." |
| Tap the child once on the head, once on the hand, then once on the arm. | "Now, tell me which part of your body I tap last." (Wait for response.) |
| Tap the child once on the arm. | "I tapped you on the arm last, like this." |
| Tap the child once on the leg, once on the head, once on the arm, and once on the hand. | "Now we'll do another. Tell me which part of your body I tap first." (Wait for response.) |
| Tap the child once on the leg. | "First, I tapped your leg, like this." |

(continued)

# G.P.3

## Exercise A

(continued)

| | |
|---|---|
| Tap the child once on the leg, once on the head, once on the arm, and once on the hand. | "Now tell me which part of your body I tap last." (Wait for response.) |
| Tap the child once on the hand. | "I tapped your hand last, like this." |

# G.P.3

## Exercise B

VIII
FIRST/LAST

| | |
|---|---|
| Present the bell, the drum and drumstick, and the jar of rice to the child. Help the child perform the indicated activities. | "Here are a bell, a drum and drumstick, and a jar of rice. Let's shake the bell to make it ring." (Wait for response.)<br>"Now let's beat the drum with the drumstick." (Wait for response.)<br>"Now let's shake the jar of rice." (Wait for response.) |
| Ring the bell once, beat the drum once, then shake the jar. | "It's your turn to listen. First I ring the bell, next I beat the drum, and I shake the jar last."<br>"What do I do first?" (Wait for response.) |
| Ring the bell once. | "First I rang the bell, like this." |
| Ring the bell once, beat the drum once, then shake the jar. | "What do I do last?" (Wait for response.) |
| Shake the jar. | "I shook the jar of rice last, like this." |
| Beat the drum once, shake the jar, then ring the bell once. | "Now we'll do another. Tell me what I do first." (Wait for response.) |

- a hand bell or jingle bells
- a drum and a drumstick
- a jar half-filled with rice

(continued)

## G.P.3
## Exercise B
(continued)

| | |
|---|---|
| Beat the drum once. | "First I beat the drum like this." |
| Beat the drum once, shake the jar, then ring the bell once. | "Now tell me what I do last." |
| Ring the bell once. | "I rang the bell last, like this." |

# G.P.3

## Exercise C

VIII

FIRST/LAST

"I'm going to make some animal sounds. Listen: A cow goes 'moo', a duck goes 'quack', a cat goes 'meow', and a bird goes 'tweet'. Now you make the sounds with me. A cow goes 'moo'." (Wait for response.)

"A duck goes 'quack'." (Wait for response.)

"A cat goes 'meow'." (Wait for response.)

"A bird goes 'tweet'." (Wait for response.)

"Tell me what sound I make first. Listen: 'tweet'. 'moo', 'quack', 'meow'. What sound did I make first?" (Wait for response.)

"First I said 'tweet'."

"What sound do I make last? Listen: 'tweet', 'moo', 'quack', 'meow'. What sound did I make last?" (Wait for response.)

"I said 'meow' last."

(continued)

# G.P.3

## Exercise C

(continued)

"Now we'll do another. Tell me what sound I make *first*. Listen: 'moo', 'tweet', 'meow', 'quack'. What sound did I make *first*?" (Wait for response.)

"*First* I said 'moo'."

---

"What sound do I make *last*? Listen: 'moo', 'tweet', 'meow', 'quack'. What sound do I make *last*?" (Wait for response.)

"I said 'quack' *last*."

# G.P.3

## Exercise D

VIII

FIRST/LAST

| | |
|---|---|
| Tap the child once on the chin, once on the head, once on the arm, and once on the leg. | "Do I tap your chin first, or do I tap your chin last?" (Wait for response.)<br>"I tapped your chin first." |
| Tap the child once on the top of the head, once on the chin, once on the ear, and once on the nose. | "Do I tap your nose first, or do I tap your nose last?" (Wait for response.)<br>"I tapped your nose last." |
| Present the keys, the blocks, and the sandpaper to the child. Jingle the keys, clap the blocks, and rub the sandpaper as appropriate. | "Here are some keys, two blocks, and some sandpaper. Listen to the keys jingle, to the sound of the blocks when I clap them together, and to the sound of the sandpaper when I rub it." |
| Clap the blocks once, rub the sandpaper squares, then jingle the keys. | "It's your turn to listen. Do I jingle the keys first or do I jingle the keys last?" (Wait for response.)<br>"I jingled the keys last." |
| Clap the blocks first, rub the sandpaper squares, then jingle the keys. | "Do I clap the blocks first or do I clap the blocks last?" (Wait for response.)<br>"I clapped the blocks first." |

keys on a key chain
two wooden blocks
two sandpaper squares

(continued)

# G.P.3

## Exercise D

"Now listen to some animal sounds. A dog goes 'woof', a horse goes 'neigh', a donkey goes 'hee haw', and a chicken goes 'cluck'. Say them with me. A dog goes 'woof'." (Wait for response.)

"A horse goes 'neigh'." (Wait for response.)

"A donkey goes 'hee haw'." (Wait for response.)

"A chicken goes 'cluck'." (Wait for response.)

"Do I say 'woof' first or do I say 'woof' last? Listen: 'woof', 'cluck', 'hee haw', 'neigh'. Did I say 'woof' first or did I say 'woof' last?" (Wait for response.)

"I said 'woof' first."

"Do I say 'neigh' first or do I say 'neigh' last? Listen: 'woof', 'cluck', 'hee haw', 'neigh'. Did I say 'neigh' first or did I say 'neigh' last?" (Wait for response.)

"I said 'neigh' last."

The child should be able to correctly identify what comes first or last, as specified, in five of the six sequences in Exercise D without help from the teacher.

If the child is unable to correctly identify the first or last event in five out of six sequences, review the FIRST-LAST Experiential Exercises and Guided Presentation 3.

**VIII**

**FIRST/LAST**

# Posttest

**Materials**

a quarter
a cotton ball
a wooden bead
a paper clip

**Test**

1a. Let the child handle each object as you name it.

SAY: "Here are some things that we're going to use: a quarter, a cotton ball, a bead, and a paper clip."

Prepare to use the quarter and the cotton ball.

SAY: "I'm going to give you two things. Tell me what I give you first." (Hand the child the quarter, then the cotton ball.)

b. Prepare to use the wooden bead and the paper clip.

SAY: "I'm going to give you two things. Tell me what I give you first." (Hand the child the wooden bead, then the paper clip.)

c. SAY: "I'm going to whistle" (whistle several notes), "and I'm going to clap" (clap your hands several times). "Tell me what I do first. Listen." (Clap, then whistle.)

d. SAY: "Now tell me what I do first. Listen." (Whistle, then clap.)

2a. Prepare to use the wooden bead and the quarter.

SAY: "I'm going to give you two things. Tell me what I give you last." (Hand the child the wooden bead, then the quarter.)

b. Prepare to use the paper clip and the cotton ball.

SAY: "I'm going to give you two things. Tell me what I give you last." (Hand the child the paper clip, then the cotton ball.)

c. SAY: "I'm going to whistle" (whistle several notes), "and I'm going to clap" (clap your hands several times). "Tell me what I do last. Listen." (Clap, then whistle.)

d. SAY: "Now tell me what I do last. Listen." (Whistle, then clap.)

3a. Prepare to use the wooden bead, the cotton ball, and the paper clip.

SAY: "I'm going to give you some things. Do I give you the bead first, or do I give you the bead last?" (Hand the child the wooden bead, then the cotton ball, then the paper clip.) "Did I give you the bead first, or did I give you the bead last?"

b. SAY: "I'm going to give you some things again. Do I give you the cotton ball first, or do I give you the cotton ball last?" (Hand the child the paper clip, then the wooden bead, then the cotton ball.) "Did I give you the cotton ball first, or did I give you the cotton ball last?"

c. SAY: "I'm going to whistle" (whistle several notes), "clap" (clap your hands several times), "and tap" (tap the wall, a table, or a chair several times). "Do I clap first, or do I clap last? Listen." (Clap, then tap, then whistle.) "Did I clap first, or did I clap last?"

d. SAY: "Listen again. Do I tap first, or do I tap last?" (Whistle, then clap, then tap.) "Did I tap first, or did I tap last?"

If the child accurately responds to all of the above items, he or she has demonstrated an understanding of the concepts first and last.

VIII
BEFORE/AFTER

# UNIT VIII : TIME

## LESSON 2 : BEFORE/AFTER

# Pretest

**Materials**

- a small piece of wrapped candy
- a paper cup
- a quarter
- a paper clip
- a cotton ball
- a drinking straw

**Test**

1a. Present the piece of candy to the child.

SAY: "Here is a piece of candy for you to unwrap and eat." (Wait for the child to eat the candy.) "Did you unwrap the candy before you ate it, or did you unwrap the candy after you ate it?"

b. SAY: "Now I'd like you to throw the candy wrapper away." (Help the child find the wastebasket, if necessary.) "Did you throw the wrapper away before you ate the candy, or did you throw the wrapper away after you ate the candy?"

If both items are answered correctly, go on to Question 2.

If one or more items are answered incorrectly, the child should concentrate on the BEFORE-AFTER Experiential Exercises and begin with Guided Presentation 1.

2a. Place the cup, the quarter, the paper clip, the cotton ball, and the drinking straw on a table in front of the child.

SAY: "I'd like you to put the quarter in the cup; please put the straw in the cup after you put in the quarter."

b. SAY: "Now I'd like you to put the paper clip in the cup, but please put the cotton ball in the cup before you put in the paper clip."

c. SAY: "Now I'd like you to take the straw out of the cup; please take the cotton ball out of the cup after you take out the straw."

## Pretest

d. SAY: "The quarter and the paper clip are in the cup. I'd like you to take them out, but please take out the paper clip before you take out the quarter."

If all four actions are performed correctly, go on to Question 3.

If one or more actions are performed incorrectly, the child should begin with Guided Presentation 2.

3a. SAY: "Did you get dressed before you got out of bed this morning, or did you get dressed after you got out of bed this morning?"

b. SAY: "Did you come to school before you got up this morning, or did you come to school after you got up this morning?"

c. SAY: "Do you eat your dinner before you go to bed, or do you eat your dinner after you go to bed?"

If all three items are answered correctly, the child can go on to the next set of concepts.

If one or more items are answered incorrectly, the child should begin with Guided Presentation 3.

# Experiential Exercises

In this lesson, before is defined as preceding in time; after is defined as following in time.

1. Whenever possible during the day, use the terms before and after to indicate a sequence of events, for example: "Before you go out you must put on your coat. After you finish your work you may play."

2. Have a sharing circle in which two or more children discuss their out-of-school experiences. Guide the discussion with the following type of question: "What did you do after you went home from school yesterday?"

3. Tell the child that you are going to write a story together. Explain that you will write the story down while he or she tells it. Suggest that the story be about something that has happened in school. After the child has dictated the story, read it back; use the terms before and after to discuss the events in the story. Let the child take the story home.

4. Have the child help prepare for lunch or snacktime. Explain that certain things must be done before it is time to eat--cups and napkins must be placed on the table, sandwiches or cookies must be unwrapped or taken out of packages. Explain the certain things must be done after eating--cups and papers must be thrown away, the table wiped off, etc.

5. Have the child help plan the class schedule for part of the day. For example, ask the child if he or she would like to rest before you serve cookies and milk or after you serve cookies and milk. Give the child two or three alternatives and discuss the sequence in which different activities will occur. Use the terms before and after in discussing the sequence of events.

# Guided Presentation 1

**OBJECTIVE:** The child will be able to state whether one of two simple, sequential events occurred before or after the other.

**PURPOSE:** These exercises are designed to help the child recognize the before-after sequence of two simple, concrete events that are closely related in time and purpose.

**MATERIALS:**

Exercise A
the child's own shoe and sock

Exercise B
a child's sweater with buttons

Exercise C
a water faucet and basin
a bar of soap
a paper towel

Exercise D
a record and a record player
a bottle of perfume or vanilla extract
a cookie or a cracker in a paper bag

**VIII**

**BEFORE/AFTER**

# G.P.1

## Exercise A

the child's own
sock shoe

| | |
|---|---|
| Have the child remove a shoe and sock from one foot. Help the child, if necessary. | "Let's see how well you can take off your shoe and sock and put them on again by yourself. First take off a shoe and a sock from one foot." (Wait for response.) |
| Help the child put on the sock, if necessary. | "Now put on the sock and shoe. You have to put on the sock before you can put on the shoe." (Wait for response.) |
| | "When do you put on your sock? Do you put it on before you put on your shoe or do you put it on after you put on your shoe?" (Wait for response.)<br>"You put on your sock before you put on your shoe." |
| Help the child put on the shoe, if necessary. | "Now let's see you put on your shoe. You put on your shoe after you put on your sock." (Wait for response.) |

(continued)

# G.P.1

VIII

BEFORE/AFTER

"When do you put on your shoe? Do you put it on __before__ you put on your sock, or do you put it on __after__ you put on your sock?" (Wait for response.)

"You put on your shoe __after__ you put on your sock."

VIII

BEFORE/AFTER

a child's sweater with buttons

## G.P.1
## Exercise B

Hand the child the sweater. Help the child put on the sweater, if necessary.

"Let's see how well you can put on this sweater and button it. First you must put on your sweater before you button it." (Wait for response.)

"When do you put on your sweater? Do you put it on before you button it or do you put it on after you button it?" (Wait for response.)

"You put on your sweater before you button it."

Help the child button the sweater, if necessary.

"Now let's button the sweater. You button your sweater after you put it on." (Wait for response.)

"When do you button the sweater? Do you button it before you put it on or do you button it after you put it on?" (Wait for response.)

"You button the sweater after you put it on."

(continued)

# G.P.1

| | |
|---|---|
| Help the child take off the sweater, if necessary. | "Now let's take off the sweater. Before you can take it off, what should you do?" (Wait for response.) |
| | "You should unbutton the sweater before you take it off. After you take off the sweater, please hand it to me." (Wait for response.) |

VIII

BEFORE/AFTER

# G.P.1

## Exercise C

a water faucet and basin

a bar of soap

a paper towel

Plan this exercise for a time when the child needs to wash his or her hands. Prepare to perform the activities along with the child so that you are a model for the child to follow. Guide the child to the basin and help the child turn on the water, if necessary.

"Let's wash our hands. Before we use the soap, we have to turn on the water and wet our hands. What do we do before we use the soap?" (Wait for response.)

"Before we use the soap, we turn on the water and wet our hands. Let's see you turn the faucet." (Wait for response.)

Help the child perform the activities and perform the activities along with the child.

"Now let's wet our hands." (Wait for response.)

"After our hands are wet, we must use the soap. The harder we rub our hands together, the more bubbles we can make." (Wait for response.)

"After our hands feel nice and clean, we have to rinse the soap off them with more water."

"When do we rinse our hands? Do we rinse our hands before we use the soap, or do we rinse our hands after we use the soap?" (Wait for response.)

"We rinse our hands after we use the soap. Let's rinse our hands now." (Wait for response.)

(continued)

# G.P.1

VIII

BEFORE/AFTER

| | |
|---|---|
| Help the child turn off the faucet, if necessary. | "Can you tell me what we should do before we dry our hands?" (Wait for response.)<br>"Before we dry our hands we should turn off the water. Let's see you do it." (Wait for response.) |
| Hand the child a paper towel. Help the child find the wastebasket, if necessary. | "Now let's dry our hands with a paper towel." (Wait for response.)<br>"After our hands are dry, we must throw the towel in the wastebasket." (Wait for response.)<br>"Do your hands feel and smell clean? Mine do." |

# G.P.1

## Exercise D

**a record and a record player**

**a bottle of perfume or vanilla extract**

**a cookie or a cracker in a paper bag**

| | |
|---|---|
| Help the child perform the indicated activities. | "Let's play a game. *Before* we start, I'd like you to turn on the record player and put the arm on the record." (Wait for response.)<br>"Did the music start *before* you put the arm on the record or did the music start *after* you put the arm on the record?" (Wait for response.)<br>"The music started *after* you put the arm on the record." |
| Help the child perform the indicated activities. | "Now very carefully lift the arm off the record." (Wait for response.)<br>"Did the music stop *before* you lifted the arm off the record, or did the music stop *after* you lifted the arm off the record?" (Wait for response.)<br>"The music stopped *after* you lifted the arm off the record. Let's turn the record player off *before* we play the next game." |
| Present the bottle of fragrance to the child. Help the child open and close the bottle when indicated. | "Here's something nice to smell. Let's open the bottle and smell what's inside." (Wait for response.) |

(continued)

# G.P.1

"Did you smell something good before you opened the bottle, or did you smell something good after you opened the bottle?" (Wait for response.)

"You smelled something good after you opened the bottle. Let's put the lid back on the bottle before we put the bottle away."

---

Hand the child the paper bag. Let the child eat the cookie at the end of the exercise.

"Here's a paper bag with something good to eat in it. Put your hand in the bag and find the surprise." (Wait for response.)

"Did you put your hand in the bag before you found the cookie, or did you put your hand in the bag after you found the cookie?" (Wait for response.)

"You put your hand in the bag before you found the cookie. What happens after you find a cookie?" (Wait for response.)

"You eat it!"

The child should be able to indicate whether a specified event occurred before or after another event in all four trials in Exercise D without help from the teacher.

If the child is unable to respond correctly in all four trials, review the BEFORE-AFTER Experiential Exercises and repeat Guided Presentation 1.

# Guided Presentation 2

**OBJECTIVE:** The child will be able to perform activities named by the teacher in a designated before-after sequence.

**PURPOSE:** These exercises are designed to help the child learn to mentally order two activities in a before-after sequence, and then demonstrate this sequence by performing the simple activities.

**MATERIALS:**

Exercise A

none

Exercise B

a book (braille or large type depending upon the child's projected reading mode)
a 12-inch ruler
a wooden block
a ball of clay

Exercise C

*a book
*a 12-inch ruler
*a wooden block
*a ball of clay

# G.P.2

## Exercise A

| | |
|---|---|
| Have the child stand for this exercise. | "I'd like you to do some things for me. Please stand up and listen very carefully to these directions. Touch your toes. After you touch your toes turn around in a circle." (Wait for response.) |
| Help the child perform the activity, if necessary. Repeat the instructions as the child performs the actions. | "After you touch your toes, turn around in a circle." |
| | "Now I'd like you to touch your toes again, but this time I'd like you to touch your nose before you touch your toes." (Wait for response.) |
| Help the child perform the activity, if necessary. Repeat the instructions as the child performs the actions. | "Touch your nose before you touch your toes." |

# G.P.2

## Exercise B

VIII

BEFORE/AFTER

| | |
|---|---|
| Have the child sit comfortably at a table for this exercise. | "Now, I'd like you to listen very carefully to what I ask you to do." |
| Place the book and the ruler on the table in front of the child. | "Here is a book and here is a ruler. I'd like you to hand them to me, but I'd like you to hand me the ruler before you hand me the book." (Wait for response.) |
| Help the child perform the activity, if necessary. Repeat the instructions as the child performs the actions. | "Hand me the ruler before you hand me the book." |
| Place the book and ruler in front of the child again. | "Now, I'd like you to hand me the book and the ruler again, but this time I'd like you to hand me the ruler after you hand me the book." (Wait for response.) |
| Help the child perform the activity if necessary. Repeat the instructions as the child performs the actions. | "After you hand me the book, hand me the ruler." |

- a book
- a 12-inch ruler
- a wooden block
- a ball of clay

(continued)

# G.P.2

## Exercise B

(continued)

| | |
|---|---|
| Remove the book and the ruler , then place the block and clay in front of the child. | "Here are a block and a ball of clay. I'd like you to hand them to me, but hand me the block before you hand me the clay." (Wait for response.) |
| Repeat the instructions as the child performs the actions. | "Hand me the block before you hand me the clay." |
| Place the block and the clay in front of the child again. | "Now, I'd like you to hand me the block and the clay again, but this time hand me the block after you hand me the clay." (Wait for response.) |
| Repeat the instructions as the child performs the actions. | "After you hand me the clay, hand me the block." |

# G.P.2

## Exercise C

VIII

BEFORE/AFTER

| | |
|---|---|
| Have the child sit comfortably at a table for this exercise. Place all four objects in front of the child. Help the child only if necessary. | "Here is a book, a ruler, a block, and a ball of clay. Listen carefully. I'd like you to do everything I ask you to do. I'd like you to hand me the ruler and the clay, but hand me the clay before you hand me the ruler."<br>"Hand me the clay before you hand me the ruler." (Wait for response.) |
| Place all four objects in front of the child. Help the child only if necessary. | "Now, hand me the wooden block, and after you hand me the block, hand me the book."<br>"After you hand me the block, hand me the book." (Wait for response.) |
| Place all four objects in front of the child. Help the child only if necessary. | "Now, hand me the clay and the block, but hand me the block before you hand me the clay."<br>"Hand me the block before you hand me the clay." (Wait for response.) |
| Place all four objects in front of the child. Help the child only if necessary. | "Hand me the ruler, and after you hand me the ruler, hand me me the book."<br>"After you hand me the ruler, hand me the book." (Wait for response.) |

*a book
*a 12-inch ruler
*a wooden block
*a ball of clay

# VIII

BEFORE/AFTER

The child should be able to perform all four of the activities in Exercise C in the specified sequence without help from the teacher.

If the child is unable to perform all four activities in the specified sequence, review the BEFORE-AFTER Experiential Exercises and Guided Presentation 1; repeat Guided Presentation 2.

# Guided Presentation 3

**OBJECTIVE:** The child will be able to name familiar daily events which occur before or after a given reference point in time.

**PURPOSE:** These exercises will help expand the child's understanding of before-after temporal relationships to include familiar activities which occur in a natural sequence over the period of one day's time.

**MATERIALS:**

Exercise A

a toothbrush

a comb

a book (braille or large print depending upon the child's projected reading mode)

a familiar puzzle or game used only in the classroom

Exercise B

none

Exercise C

none

Exercise D

none

VIII

BEFORE/AFTER

# G.P.3

## Exercise A

**a toothbrush**

**a comb**

**a book**

**a familiar puzzle or game used only in the classroom**

Present the toothbrush and the book to the child.

"Here are two things that we use, a toothbrush and a book. Show me one thing that you would use *before* you come to school in the morning." (Wait for response.)

"You use a toothbrush *before* you come to school in the morning. You use it to brush your teeth."

"Now show me something that you can use *after* you come to school." (Wait for response.)

"You use a book *after* you come to school."

Present the comb and the puzzle to the child.

"Here are two more things that you can use, a comb and a (name game or puzzle)."

"Now show me one thing that you would use *before* you come to school." (Wait for response.)

"You would use a comb *before* you come to school in the morning. You use it to comb your hair."

(continued)

## G.P.3

VIII

BEFORE/AFTER

"Show me one thing that you can use after you come to school." (Wait for response.)

"You use a (name puzzle or game) after you come to school."

## G.P.3
### Exercise B

"Let's play a guessing game. I"ll tell you some of the things I did this morning, and you tell me when I did them."

---

"This morning I ate breakfast. Did I eat my breakfast before I woke up, or did I eat my breakfast after I woke up?" (Wait for response.)

"I ate my breakfast after I woke up."

---

"This morning I got dressed. Did I get dressed before I came to school, or did I get dressed after I came to school?" (Wait for response.)

"I got dressed before I came to school."

---

"This morning I brushed my teeth. Did I brush my teeth before I came to school, or did I brush my teeth after I came to school?" (Wait for response.)

"I brushed my teeth before I came to school."

---

(continued)

## G.P.3

VIII

BEFORE/AFTER

"This morning I put on my shoes. Did I put on my shoes before I got out of bed, or did I put on my shoes after I got out of bed?" (Wait for response.)

"I put on my shoes after I got out of bed."

---

"This morning I came to school. Did I come to school before I ate breakfast, or did I come to school after I ate breakfast?' (Wait for response.)

"I came to school after I ate breakfast."

VIII

BEFORE/AFTER

# G.P.3

## Exercise C

"I'd like you to think of all the things you did this morning before you came to school. Let's see how busy you were."

"Did you wake up before you came to school?" (Wait for response.)

"Yes, you woke up before you came to school."

"Did you get dressed before you came to school?" (Wait for response.)

"Yes, you got dressed before you came to school."

"Tell me some of the other things you did before you came to school." (Wait for response.)

If the child is unable to think of a response, prompt the child by suggesting activities, e.g., "Before you came to school, did you wash your face?"

Have the child name at least three things he or she did before coming to school.

(continued)

# G.P.3

If necessary, prompt the child by suggesting activities, e.g., "*After* you came to school, did you take off your coat?"

Have the child name at least three things he or she did after coming to school.

"Now tell me some things you did *after* you came to school today." (Wait for response.)

# G.P.3

## Exercise D

| | |
|---|---|
| Have the child name at least three appropriate activities. Prompt the child's response only if necessary, e.g., "Do you have a snack after you get home from school?" | "Now I'd like you to tell me some things you do after you get home from school every day."<br>"Tell me what you do after school as soon as you get home." (Wait for response.) |
| Have the child name at least three appropriate activities. Prompt the child's response only if necessary, e.g., "Do you wash your face before you go to bed?" | "Now I'd like to know some things you do before you go to bed at night."<br>"Tell me what you do just before you go to bed." (Wait for response.) |

The child should be able to name at least three activities which occur immediately after school and three activities which occur immediately before bedtime in Exercise D without help from the teacher.

If the child is unable to name six appropriate activities, review the BEFORE-AFTER Experiential Exercises and Guided Presentations 1 and 2; repeat Guided Presentation 3.

# Posttest

VIII

BEFORE/AFTER

**Materials**

a small piece of wrapped candy
a paper cup
a quarter
a paper clip
a cotton ball
a drinking straw

**Test**

1a. Present the piece of candy to the child.

SAY: "Here is a piece of candy for you to unwrap and eat." (Wait for the child to eat the candy.) "Did you unwrap the candy _before_ you ate it, or did you unwrap the candy _after_ you ate it?"

b. SAY: "Now I'd like you to throw the candy wrapper away." (Help the child find the wastebasket, if necessary.) "Did you throw the wrapper away _before_ you ate the candy, or did you throw the wrapper away _after_ you ate the candy?"

# Posttest

2a. Place the cup, the quarter, the paper clip, the cotton ball, and the drinking straw on a table in front of the child.
SAY: "I'd like you to put the quarter in the cup; please put the straw in the cup *after* you put in the quarter."

b. SAY: "Now I'd like you to put the paper clip in the cup, but please put the cotton ball in the cup *before* you put in the paper clip."

c. SAY: "Now I'd like you to take the straw out of the cup; please take the cotton ball out of the cup *after* you take out the straw."

d. SAY: "The quarter and the paper clip are in the cup. I'd like you to take them out, but please take out the paper clip *before* you take out the quarter."

3a. SAY: "Did you get dressed *before* you got out of bed this morning, or did you get dressed *after* you got out of bed this morning?"

b. SAY: "Did you come to school before you got up this morning, or did you come to school after you got up this morning?"

c. SAY: "Do you eat your dinner before you go to bed, or do you eat your dinner after you go to bed?"

> If the child accurately responds to all of the above items, he or she has demonstrated an understanding of the concepts before and after.

IX

PATTERNING

# UNIT IX : CONFIGURATIONS

## LESSON 1 : PATTERNING

IX

PATTERNING

# Pretest

**Materials**

an unlined index card (3 inches by 5 inches)

an unlined index card (3 inches by 5 inches) with a horizontal line of rickrack glued onto it

a strawberry or tomato basket

a smooth plastic container equivalent in size and shape to the patterned basket

a patterned ball (golf ball, wiffle ball, softball)

a smooth ball equivalent in size to the patterned ball (ping pong ball, smooth rubber ball)

two unlined index cards (3 inches by 5 inches) with two parallel lines of staples across the 5-inch length

two unlined index cards (3 inches by 5 inches) with macaroni wheels randomly glued onto them

an unlined index card (3 inches by 5 inches) with pinto or navy beans randomly glued onto it

an unlined index card (3 inches by 5 inches) with holes randomly punched into it

**Test**

1a. Present the plain index card and the card with rickrack on it to the child.

SAY: "I'd like you to give me the card that has a pattern on it that you can feel."

b. Present the patterned basket and the unpatterned box to the child.

SAY: "I'd like you to give me the box that has a pattern on it that you can feel."

c. Present the patterned and unpatterned balls to the child.

SAY: "I'd like you to give me the ball that has a pattern on it that you can feel."

If all three items are answered correctly, go on to Question 2.

If one or more items are answered incorrectly, the child should concentrate on the PATTERNING Experiential Exercises and begin with Guided Presentation 1.

2a. Present the two index cards with the lines of staples and the index card with rickrack to the child. Hold the index cards so that the lines run horizontally.

SAY: "Here are some cards. Feel them all." (Place the child's hand on a card with staples.) "Show me one that has a pattern that feels like this one."

b. Present the two index cards with macaroni wheels and one stapled index card to the child.

SAY: "Here are some more cards. Feel them all." (Place the child's hand on a card with wheels.) "Show me one that has a pattern that feels like this one."

If both items are answered correctly, go on to Question 3.

If one or both items are answered incorrectly, the child should begin with Guided Presentation 2.

3a. Present one index card with beans, one index card with holes, and one index card with rickrack to the child.

SAY: "Here are some things to feel. I'd like you to give me something that has a pattern on it that is made of lots of bumps or lumps."

b. Present one index card with holes, one stapled index card, and one index card with the rickrack to the child.

SAY: "Here are some cards to feel. I'd like you to give me something that has a pattern on it made of holes."

If both items are answered correctly, go on to the next set of concepts.

If one or both items are answered incorrectly, the child should begin with Guided Presentation 3.

# Experiential Exercises

IX

PATTERNING

In these exercises, a pattern is defined as a particular arrangement of parts or elements in a form which can be perceived tactually.

1. Use the term pattern during the course of the school day whenever possible. Point out patterns on toys, material, and other objects in the classroom.

2. Give the child flat pieces of clay and various objects suitable for making patterns in the clay (bottle caps, spools, cookie cutters). Encourage the child to make patterns in the clay with different parts of his or her body such as finger tips, knuckles, elbows, or toes.

3. Give the child a pegboard and some pegs. Encourage the child to place pegs in the holes and help the child examine the patterns that result.

4. Let the child make glue and sand (or jello crystal) patterns on pieces of cardboard or paper. Help the child apply glue in a random design with a paintbrush. Sprinkle sand over the design, shaking off the excess sand. When the glue has dried,

the sand sticks to the glue, leaving a pattern for the child to feel. Have the child make several designs and compare the patterns.

5. Make a sand or cornmeal tray. Put 1/2 inch of sand in a tray or shallow box. Give the child large beads, marbles, beans, or macaroni and encourage the child to make patterns in the tray with the objects. Name the patterns if possible (circle, line, wavy line, zigzag).

# Guided Presentation 1

**OBJECTIVE:** The child will be able to recognize tactual patterns.

**PURPOSE:** These exercises will help the child recognize that patterns exist in the environment.

**MATERIALS:**

Exercise A

a plastic cup that has a raised line pattern

a smooth paper or plastic cup (similar in size and shape to the patterned cup)

a large serving spoon with a pattern cut into the bowl of the spoon

a large serving spoon with an uncut bowl

Exercise B

an unlined index card (5 inches x 8 inches)

an unlined index card (5 inches x 8 inches) with four pieces of yarn glued parallel to one another along the length of the card

a small, cellophane bag of potato chips (unopened)

the top strip (with raised lines) of a cellophane wrapper from a bag of potato chips

a smooth part of a cellophane wrapper from a bag of potato chips

**MATERIALS:** (continued)

Exercise C

two smooth clay balls (about 2 inches in diameter)

a clay ball (about 2 inches in diameter) with random depressions made in it with an index finger

a clay ball (about 2 inches in diameter) with grains of rice pressed randomly onto it

a tablespoon of rice

(Let the child help prepare the clay for this exercise.)

# G.P.1

## Exercise A

| | |
|---|---|
| Have the child sit comfortably at a table for this exercise. Present the cups to the child. | "I have some cups for you to feel." |
| Present the patterned cup to the child. Help the child feel the pattern, if necessary. | "This cup has a pattern on it that you can feel. Feel the pattern." (Wait for response.) |
| Present the smooth cup to the child. Help the child feel the cup, if necessary. | "This cup doesn't have a pattern that you can feel. It's smooth. Feel this cup." (Wait for response.) |
| Place both cups on the table. | "I'd like you to show me the cup with the pattern that you can feel." (Wait for response.) |
| Present the patterned cup to the child. Help the child feel the pattern, if necessary. | "This cup has a pattern. Feel the pattern again." (Wait for response.) |
| Remove the cups and present the patterned and the unpatterned spoons to the child. | "Here are some spoons." |

(continued)

- a plastic cup with a vertical ridge pattern
- a smooth paper or plastic cup
- a large serving spoon with a pattern cut into the bowl of the spoon
- a large serving spoon with an uncut bowl

# G.P.1

## Exercise A

(continued)

| | |
|---|---|
| Present the patterned spoon to the child. Help the child feel the pattern on the bowl, if ncessary. | "This spoon has a pattern on it that you can feel. Feel the pattern." (Wait for response.) |
| Present the unpatterned spoon to the child. Help the child feel the bowl, if necessary. | "This spoon doesn't have a pattern on it that you can feel. It's smooth. Feel this spoon." (Wait for response.) |
| Place both spoons on the table. | "I'd like you to show me the spoon with the pattern that you can feel." (Wait for response.) |
| Hand the patterned spoon to the child. Help the child feel the pattern on the bowl, if necessary. | "This spoon has the pattern. Feel the pattern again." (Wait for response.) |

# G.P.1

## Exercise B

| | |
|---|---|
| The child should sit comfortably at a table for this exercise. Present the smooth index card and the patterned index card to the child. | "Here are some cards." |
| Hand the child the patterned card. Help the child feel the pattern, if necessary. | "This card has a pattern on it. Feel the pattern." (Wait for response.) |
| Hand the child the smooth card. Help the child feel the card, if necessary. | "This card doesn't have a pattern on it. Feel this card." (Wait for response.) |
| Place both cards on the table. | "I'd like you to hand me the card with the pattern on it." (Wait for response.) |
| Hand the card with the pattern to the child. Help the child feel the pattern, if necessary. | "This card has a pattern on it. Feel the pattern again." (Wait for response.) |
| Present the two pieces of cellophane to the child. | "Here are some parts of a potato chip bag." |
| Hand the patterned cellophane to the child. Help the child feel the pattern, if necessary. | "Here is a piece that has a pattern that you can feel. Feel the pattern on this piece of the bag." (Wait for response.) |

(continued)

an unlined index card

an unlined index card with four pieces of yarn glued parallel to one another along the length of the card

a small, cellphane bag of potato chips

the top strip (with raised lines) of a cellophane wrapper from a bag of potato chips

a smooth part of a cellophane wrapper from a bag of potato chips

# G.P.1

## Exercise B

(continued)

| | |
|---|---|
| Hand the smooth cellophane to the child. Help the child feel the cellophane, if necessary. | "This piece doesn't have a pattern that you can feel. Feel this piece of the bag." (Wait for response.) |
| Place both pieces of cellophane on the table. | "Here are the two pieces of cellophane. I'd like you to give me the piece that has a pattern on it." (Wait for response.) |
| Hand the patterned cellophane to the child. | "This piece has a pattern on it. Feel the pattern again." (Wait for response.) |
| Present the intact cellophane bag to the child. Help the child open the bag as indicated. | "Here is a potato chip bag. Show me a part that has a pattern." (Wait for response.)<br>"If you open it there, you may eat what's inside." |

# G.P.1

## Exercise C

| | |
|---|---|
| Present a smooth clay ball to the child. | "Here is a ball made from clay. The ball is smooth. Feel the ball carefully." (Wait for response.) |
| Hand the ball of clay with finger depressions in it to the child. Help the child feel the pattern, if necessary. | "Here is another ball of clay. It has a pattern on it that you can feel. Feel the pattern." (Wait for response.) |
| Hand a smooth clay ball to the child. Help the child make the pattern, if necessary. | "You can make this pattern by poking the clay with your finger. Let's see you make a pattern in this ball of clay." (Wait for response.) |
| Remove the three clay balls and hand the clay ball with rice pressed onto it to the child. Help the child feel the pattern, if necessary. | "Here is another clay ball. It has a pattern on it that you can feel. Feel the pattern on this ball of clay." (Wait for response.) |
| Place a tablespoon of rice on the table. Help the child feel the rice and the rice pattern on the ball, if necessary. | "I used rice to make the pattern on this ball of clay. Feel the rice and then feel the rice on the ball of clay." (Wait for response.) |
| Place a smooth clay ball, a clay ball with finger depressions in it, and a clay ball with rice pressed onto it, on the table. | "Here are three balls of clay. Can you give me a ball of clay that has a pattern on it?" (Wait for response.) |

- two smooth clay balls
- a clay ball with random depressions made in it with an index finger
- a clay ball with grains of rice pressed randomly onto it
- a tablespoon of rice

(continued)

# G.P. 1

## Exercise C

(continued)

| | |
|---|---|
| Hand the child one of the patterned clay balls. | "This ball of clay has a pattern on it." |
| A smooth clay ball and a patterned clay ball should now remain on the table. | "Can you give me another ball of clay that has a pattern on it?" (Wait for response.) |
| Hand the child the other patterned clay ball. | "This ball of clay has a pattern on it." |
| Hand the child the smooth clay ball. | "This ball of clay doesn't have a pattern that you can feel. It's smooth. Feel it." (Wait for response.) |

The child should be able to choose the two patterned clay balls from the three clay balls presented at the end of Exercise C without help from the teacher.

If the child is unable to select both patterned clay balls, review the PATTERNING Experiential Exercises and repeat Guided Presentation 1.

# Guided Presentation 2

**OBJECTIVE:** The child will be able to match identical tactual patterns in a group of patterns presented by the teacher.

**PURPOSE:** These exercises are designed to heighten the child's understanding of patterns by encouraging the child to recognize the similarities and differences among patterns.

**MATERIALS:**

Exercise A

two flat squares of clay (about 4 inches square) with lima beans randomly pressed into them

a flat square of clay (about 4 inches square) with three horizontal lines cut into it about 1 inch apart

two balls of clay (about 2 inches in diameter) with whole cloves randomly pressed into them

a ball of clay (about 2 inches in diameter) with finger depressions randomly poked into it

(Let the child help prepare the clay for this exercise.)

(continued)

**MATERIALS:** (continued)

Exercise B

a 5 inch by 8 inch piece of colored construction paper with holes randomly punched in it

an unlined index card (5 inches by 8 inches) with holes randomly punched in it

a 5 inch by 8 inch piece of heavy cardboard with gummed looseleaf paper reinforcers randomly glued onto it

a bar of soap with a single, zigzag line engraved in it

a square of clay (about 4 inches square) with a horizontal straight line engraved along the middle of it

an unlined index card (5 inches by 8 inches) with a piece of yarn glued onto it in a horizontal straight line along the middle of the card

Exercise C

two squares of dotted swiss fabric (about 3 inches square)

a square of corduroy fabric (about 3 inches square)

two bars of soap engraved with a single, zigzag line

a bar of soap engraved with three vertical parallel lines

# G.P.2

## Exercise A

| | |
|---|---|
| Have the child sit comfortably at a table for this exercise. Place the three squares of clay on the table in front of the child. | "Here are some patterns that you can feel." |
| Place the child's hand on one of the squares of clay with the lima bean pattern. Help the child feel the pattern, if necessary. | "Can you show me a pattern that is the same as this? Feel the pattern carefully." (Wait for response.) |
| Place the child's other hand on the second square of clay with the lima bean pattern. Help the child feel the patterns with both hands, if necessary. | "These patterns are the same. Feel them. They're both bumpy. I made them by pressing lima beans into the clay." |
| Place the child's hand on the square of clay with the line pattern. Help the child feel the pattern, if necessary. | "This pattern is not bumpy. It has lines on it." |
| Remove the squares and place the three balls of clay on the table in front of the child. | "Here are some more patterns that you can feel." |

(continued)

- two flat squares of clay with lima beans pressed into them
- a flat square of clay with three horizontal lines cut into it about 1 inch apart
- two balls of clay with whole cloves randomly pressed into them
- a ball of clay with finger depressions randomly poked into it

# G.P.2

## Exercise A

(continued)

| | |
|---|---|
| Place the child's hand on one of the balls of clay with the clove pattern. Help the child feel the pattern, if necessary. | "Can you show me a pattern that is the same as this?" (Wait for response.) |
| Place the child's other hand on the second ball of clay with the clove pattern. Help the child feel the patterns with both hands and remove a clove, if necessary. | "These patterns are the same. Feel them. They both have little hard bumps that you can feel. I made the bumps by pressing cloves into the ball of clay. Pull out a clove and smell it. It smells good." (Wait for response.) |
| Place the child's hand on the ball of clay with the finger depression pattern. Help the child feel the pattern, if necessary. | "I made this pattern by poking my finger into the ball of clay. It doesn't have cloves in it." |

# G.P.2

## Exercise B

| | |
|---|---|
| Have the child sit comfortably at a table for this exercise. Place the construction paper, the index card, and the cardboard in front of the child. | "Here are some patterns for you to feel." |
| Place the child's hand on the construction paper. Help the child feel the pattern, if necessary. | "Can you show me a pattern that is the same as this? Feel the pattern carefully." (Wait for response.) |
| Place the child's other hand on the index card. Help the child feel the patterns with both hands, if necessary. | "These patterns are the same. Feel them. They're both made of little round holes that I punched out of the paper." |
| Place the child's hand on the heavy cardboard. Help the child feel the pattern, if necessary. | "This pattern is not made of holes. I glued little shapes onto the cardboard to make this pattern." |
| Place the bar of soap with the zigzag line, the square of clay with the straight line, and the index card with the straight line in front of the child. | "Here are some patterns that you can feel." |

(continued)

colored construction paper with holes

an unlined index card with holes

heavy cardboard with gummed looseleaf paper reinforcers

a bar of soap with a zigzag line engraved in it

a square of clay with a horizontal straight line engraved along the middle of it

an unlined index card with a piece of yarn glued onto it in a horizontal straight line along the middle of the card

# G.P.2

## Exercise B

(continued)

| | |
|---|---|
| Place the child's hand on the index card. Help the child feel the pattern, if necessary. | "Can you show me a pattern that is the same as this? Feel the pattern carefully." (Wait for response.) |
| Place the child's other hand on the square of clay. Help the child feel the patterns with both hands, if necessary. | "These patterns are the same. Feel them. They're both straight lines." |
| Place the child's hand on the bar of soap. Help the child feel the pattern, if necessary. | "This pattern is not a straight line. It's a zigzag line that goes up to a point and comes down, then goes up and down again. Feel it carefully." |

# G.P.2

## Exercise C

| | |
|---|---|
| Have the child sit comfortably at a table for this exercise. Place the three fabric squares in front of the child. | "Here are some more patterns that you can feel." |
| Place the child's hand on one of the dotted swiss squares. Help the child feel the pattern, if necessary. | "Can you show me a pattern that is the same as this? Feel the pattern carefully." (Wait for response.) |
| Place the child's other hand on the second dotted swiss square. Help the child feel the patterns with both hands, if necessary. | "These patterns are the same. Feel them. They're both bumpy." |
| Remove the squares and place the three bars of soap in front of the child. | "Here are more patterns to feel." |
| Place the child's hand on the bar of soap with the zigzag pattern. | "Can you show me a pattern that is the same as this?" (Wait for response.) |

(continued)

- two squares of dotted swiss fabric
- a square of corduroy fabric
- two bars of soap engraved with a single zigzag line
- a bar of soap with three vertical parallel lines

# G.P.2

## Exercise C

(continued)

| | |
|---|---|
| Place the child's other hand on the second bar of soap with the zigzag pattern. Help the child feel the pattern with both hands, if necessary. | "These patterns are the same. Feel them. They're both a zigzag line that goes up and down and up and down." |

The child should be able to match the identical patterns in the two trials in Exercise C without help from the teacher.

If the child is unable to match the identical patterns in the two trials, review the PATTERNING Experiential Exercises and Guided Presentation 1; repeat Guided Presentation 2.

# Guided Presentation 3

**OBJECTIVE:** The child will be able to recognize a specific tactual pattern from its name.

**PURPOSE:** These exercises will help the child understand that tactual patterns have names. This is in preparation for the symbolic thinking required in reading.

**MATERIALS:**

Exercise A

- a dotted swiss fabric square (about 3 inches square)
- a corduroy fabric square (about 3 inches square)
- a crocheted fabric square (about 3 inches square)

Exercise B

*a dotted swiss fabric square
*a corduroy fabric square
*a crocheted fabric square

(continued)

**MATERIALS:** (continued)

Exercise C

a bar of soap engraved with one wavy line

a bar of soap engraved with a wide zigzag line

a bar of soap engraved with one widely-spaced spiral

Exercise D

*a bar of soap engraved with one wavy line

*a bar of soap engraved with a wide zigzag line

*a bar of soap engraved with one widely-spaced spiral

# G.P.3

## Exercise A

Have the child sit comfortably at a table for this exercise. Present the dotted swiss fabric square to the child. Help the child feel the dots, if necessary.

"Here is a piece of material that has a pattern on it. Feel the material. The pattern is made of little dots and it feels bumpy. It's called dotted swiss and it's bumpy."

"What is the name of the pattern on this material?" (Wait for response.)

"This pattern is dotted swiss and it's bumpy."

---

Present the corduroy fabric square to the child. Help the child feel the lines, if necessary.

"Here is another piece of material that has a pattern. Feel the material. The pattern is made of lines. It's called corduroy and it's made of lines."

"What is the name of the pattern on this material?" (Wait for response.)

"The pattern is corduroy and it's made of lines."

---

Present the crocheted fabric square to the child. Help the child feel the pattern, if necessary.

"Here is another piece of material that has a pattern. Feel the material. The pattern has holes in it. It's called crochet."

"What is the name of the pattern on this material?" (Wait for response.)

"The pattern is called crochet and it has holes in it."

- a dotted swiss fabric square
- a corduroy fabric square
- a crocheted fabric square

# G.P.3

## Exercise B

a dotted swiss fabric
a corduroy fabric square
a crocheted fabric square

| | |
|---|---|
| Present all three fabric squares to the child. Help the child feel the patterns, if necessary. | "Here are all three pieces of material. Feel them carefully."<br>"I'd like you to give me the piece of material with the corduroy pattern made with lines." (Wait for response.) |
| Hand the corduroy square to the child, if necessary. | "This is the corduroy pattern."<br>"What is this pattern called?" (Wait for response.)<br>"Corduroy." |

| | |
|---|---|
| Present all three fabric squares again to the child. | "I'd like you to give me the piece of material with the dotted swiss pattern that is bumpy." (Wait for response.) |
| Hand the dotted swiss square to the child, if necessary. | "This is the dotted swiss pattern."<br>"What is this pattern called?" (Wait for response.)<br>"Dotted swiss." |

| | |
|---|---|
| Present all three fabric squares again to the child. | "Now I'd like you to give me the piece of material with the crochet pattern that has holes." (Wait for response.) |
| Hand the crocheted square to the child, if necessary. | "This is the crochet pattern."<br>"What is this pattern called?" (Wait for response.)<br>"Crochet." |

# G.P.3

## Exercise C

a bar of soap engraved with one wavy line

a bar of soap engraved with a wide zigzag line

a bar of soap engraved with one widely-spaced spiral

Have the child sit comfortably at a table for this exercise. Present the soap with the wavy line to the child. The wavy line should run from left to right. Help the child follow the pattern from left to right.

"Here is some soap that has a special pattern on it. Feel the pattern. The pattern is a wavy pattern. It curves up and down and is fun to follow with your finger. Follow the wavy pattern with your finger."

"What is the name of the pattern?" (Wait for response.)

"The pattern is wavy."

---

Present the soap with the zigzag line to the child. The zigzag should run from left to right. Help the child follow the pattern from left to right.

"Here is a bar of soap that has another special pattern on it. The pattern is a zigzag. Feel the pattern. It goes up to a point and then goes down. Then it goes up and down all over again. Follow the zigzag pattern with your finger."

"What is the name of the pattern?" (Wait for response.)

"The pattern is a zigzag."

---

Present the soap with the spiral to the child. Help the child follow the spiral, beginning at the center.

"Here is another special pattern on a bar of soap. The pattern is a spiral. Feel the pattern. It goes around and around and gets bigger and bigger. It feels like a lot of circles. Follow the spiral pattern with your finger."

"What is the name of the pattern?" (Wait for response.)

"The pattern is a spiral."

# G.P.3
## Exercise D

a bar of soap engraved with one wavy line

a bar of soap engraved with a wide zigzag line

a bar of soap engraved with one widely-spaced spiral

| | |
|---|---|
| Present all three bars of soap to the child. Help the child feel the patterns, if necessary. | "Here are all three bars of soap. Feel them carefully."<br>"I'd like you to give me the soap that has a zigzag pattern." (Wait for response.) |
| Hand the soap with the zigzag line to the child, if necessary. | "This is the zigzag pattern that goes up and down."<br>"What is this pattern called?" (Wait for response.)<br>"Zigzag." |

---

| | |
|---|---|
| Present all three bars of soap again to the child. | "I'd like you to give me the soap that has the wavy pattern." (Wait for response.) |
| Hand the soap with the wavy line to the child, if necessary. | "This is the wavy pattern that curves up and down."<br>"What is this pattern called?" (Wait for response.)<br>"Wavy." |

---

| | |
|---|---|
| Present all three bars of soap again to the child. | "I'd like you to give me the soap with the spiral pattern." (Wait for response.) |

(continued)

# G.P.3

Hand the soap with the spiral line to the child, if necessary.

"This is the spiral pattern that goes around like many circles and gets bigger and bigger."

"What is the name of the pattern?" (Wait for response.)

"Spiral."

The child should be able to select (though need not name) five of the six specified patterns in Exercises B and D without help from the teacher.

If the child is unable to select five of the six specified patterns, review the PATTERNING Experiential Exercises and Guided Presentations 1 and 2; repeat Guided Presentation 3.

# Posttest

**Materials**

an unlined index card (3 inches by 5 inches)

an unlined index card (3 inches by 5 inches) with a horizontal line of rickrack glued onto it

a strawberry or tomato basket

a smooth plastic container equivalent in size and shape to the patterned basket

a patterned ball (golf ball, wiffle ball, softball)

a smooth ball equivalent in size to the patterned ball (ping pong ball, smooth rubber ball)

two unlined index cards (3 inches by 5 inches) with two parallel lines of staples across the 5-inch length

two unlined index cards (3 inches by 5 inches) with macaroni wheels randomly glued onto them

an unlined index card (3 inches by 5 inches) with pinto or navy beans randomly glued onto it

an unlined index card (3 inches by 5 inches) with holes randomly punched into it

**Test**

1a. Present the plain index card and the card with rickrack on it to the child.

SAY: "I'd like you to give me the card that has a pattern on it that you can feel."

b. Present the patterned basket and the unpatterned box to the child.

SAY: "I'd like you to give me the box that has a pattern on it that you can feel."

c. Present the patterned and unpatterned balls to the child.

SAY: "I'd like you to give me the ball that has a pattern on it that you can feel."

2a. Present the two index cards with the lines of staples and the index card with rickrack to the child. Hold the index cards so that the lines run horizontally.

SAY: "Here are some cards. Feel them all." (Place the child's hand on a card with staples.) "Show me one that has a pattern that feels like this one."

b. Present the two index cards with macaroni wheels and one stapled index card to the child.

SAY: "Here are some more cards. Feel them all." (Place the child's hand on a card with wheels.) "Show me one that has a pattern that feels like this one."

3a. Present one index card with beans, one index card with holes, and one index card with rickrack to the child.

SAY: "Here are some things to feel. I'd like you to give me something that has a pattern on it that is made of lots of bumps or lumps."

b. Present one index card with holes, one stapled index card, and one index card with rickrack to the child.

SAY: "Here are some cards to feel. I'd like you to give me something that has a pattern on it made of holes."

If the child accurately responds to all of the above items, he or she has demonstrated an understanding of the concept patterning.

IX

SEQUENCING

# UNIT IX : CONFIGURATIONS

# LESSON 2 : SEQUENCING

IX

SEQUENCING

# Pretest

**Materials**

six large identical buttons
six identical beans (lima, pinto, etc.)
a baby food jar filled with peanuts
a baby food jar half-filled with peanuts
an empty baby food jar

**Test** Have the child sit comfortably at a table for this pretest.

1a. Arrange three buttons and three beans in the following sequence on the table from left to right: button, bean, button, bean, button, bean. Place three more buttons and three more beans in a random group on the table, away from the ordered row.

SAY: "Here are some buttons and some beans in a row. I'd like you to make a new row just like this row with the buttons and beans in this pile."

> If this task is completed correctly, go on to Question 2.
>
> If this task is completed incorrectly, the child should concentrate on the SEQUENCING Experiential Exercises and begin with Guided Presentation 1.

2a. SAY: "Listen carefully to what I do. Let's hear you do it." (Stamp your foot one time, then clap your hands two times.)

b. SAY: "Listen carefully to what I do. Let's hear you do it." (Stamp your foot one time, then clap your hands one time. Repeat this basic pattern a total of three times [stamp, clap; stamp, clap; stamp, clap].)

If both items are answered correctly, go on to Question 3.

If one or both items are answered incorrectly, the child should begin with Guided Presentation 2.

3a. Place the three baby food jars in front of the child, in the following order from left to right: the full jar, the half-filled jar, and the empty jar. Guide the child's hand to the objects as you discuss them.

SAY: "Here are some things to feel. Listen carefully to this story about them:

# Pretest

"Alice wants to eat some peanuts. Her peanuts are in a jar like this one." (Guide the child's hand to the full jar.)

"Alice opens the jar, takes out a handful of peanuts, and eats them. Now her jar of peanuts is like this." (Guide the child's hand to the half-filled jar.)

"Alice really likes the peanuts, so she finishes them all up. Only the empty jar is left. It is like this. Alice loved her peanuts." (Guide the child's hand to the empty jar.)

"I'd like you to tell me the story about Alice and the peanuts. Point to the things that show what you are saying." (The child should relate the correct sequence of events in the story by giving at least one appropriate statement about each of the three objects from left to right.)

If this task is completed correctly, go on to the next set of concepts.

If this task is completed incorrectly, the child should begin with Guided Presentation 3.

# Experiential Exercises

IX

SEQUENCING

In these exercises, a sequence is defined as a group of things or events coming one after another in a logical order.

1. Give the child a simple rhythm instrument. Have the child copy some rhythm patterns that you make. If the child produces his or her own rhythm patterns, the teacher should replicate them.

2. Give the child a simple art project to construct. Instead of giving the child verbal instructions only, have examples of the in-between stages of the project for the child to copy, in addition to verbal instructions.

3. Give the child two, three, or four related objects in a specific order. Have the child make up stories that relate to the objects in the particular order of presentation.

4. On a pegboard, have the child match sequences that have been made from pegs of different sizes or colors to form a basic pattern that is repeated several times.

5. Let the child try to teach a classmate how to do a task that involves several steps. The child should be very familiar with the task. Help the child break the task into its component parts and into the correct sequence before the child teaches the task to a peer.

# Guided Presentation 1

**OBJECTIVE:** The child will be able to replicate a given sequence of objects.

**PURPOSE:** These exercises will help the child learn to match a given set of objects in a specific order.

**MATERIALS:**

Exercise A

four identical spools of thread (about 1 3/4 inches high)

four cotton balls

Exercise B

four identical sponges

four identical 3 1/2-ounce paper cups

Exercise C

* four identical 3 1/2-ounce paper cups

* four identical cotton balls

* four identical spools of thread

Exercise D

* six identical 3 1/2-ounce paper cups

* six identical spools of thread

# G.P.1

## Exercise A

four identical spools of thread

four cotton balls

| | |
|---|---|
| Have the child sit comfortably at a table for this exercise. Arrange two of the spools and two of the cotton balls in the following sequence on the table from left to right: spool, cotton, spool, cotton. Guide the child's hand to each item as you discuss it. | "Here are some spools of thread and cotton balls. Here are a spool and a cotton ball, and another spool and a cotton ball." |
| Place the remaining two spools and two cotton balls in another area on the table that the child can reach. Guide the child's hand to the random group of items and again to the initial row of items. | "Here are some more spools and cotton balls." |
| Carefully guide the child's hand to the objects as you discuss them from left to right. Have the child help you move the objects into position to make a duplicate row in front of the initial row of items. Help the child feel and compare each row when completed. | "Let's make a row with them that is just like this row."<br>"Here is a spool. Let's put another spool right here in front of it."<br>"Here is a cotton ball. Let's put another cotton ball right here in front of it."<br>"Next is a spool. Let's put another spool right here in front of it. What's next?" (Wait for response.) |

(continued)

# G.P.1

"Next is a cotton ball. Let's put another cotton ball right here in front of it."

"That's all. We've finished our row. Feel each row. They're the same." (Wait for response.)

---

Remove the items in the second row and place them in an area that the child can reach. Guide the child's hand to the initial row of items and to the random group of items as you discuss them. Help the child make the second row from left to right only if necessary.

"Now let's see you do it all by yourself. Here is a row of spools and cotton balls, and here are the things to make a row just like it. I'd like you to make a row just like this one." (Wait for response.)

# G.P.1
## Exercise B

four identical sponges

four identical 3 1/2-ounce paper cups

Have the child sit comfortably at a table for this exercise. Arrange two of the sponges and two of the cups in the following sequence on the table from left to right: sponge, cup, sponge, cup. Guide the child's hand to each item as you discuss it.

"Here are some sponges and paper cups. Here is a sponge and a paper cup, and another sponge and a paper cup."

Place the remaining two sponges and two cups in another area on the table that the child can reach. Guide the child's hand to the random group of items and again to the initial row of items.

"Here are some more sponges and paper cups."

Carefully guide the child's hand to the objects as you discuss them from left to right. Have the child help you move the objects into position to make a duplicate row in front of the initial row of items. Help the child feel and compare each row when completed.

"Let's make a row with them that is just like this row. Here is a sponge. Let's put another sponge right here in front of it."

"Here is a paper cup. Let's put another paper cup right here in front of it."

"Next is a sponge. Let's put another sponge right here in front of it. What's next?" (Wait for response.)

"Next is a paper cup. Let's put another paper cup right here in front of it."

(continued)

"That's all. We've finished our row. Feel each row. They're the same." (Wait for response.)

---

Remove the items in the second row and place them in an area that the child can reach. Guide the child's hand to the initial row of items and to the random group of items as you discuss them. Help the child make the second row from left to right only if necessary.

"Now let's see you do it. Here is a row of sponges and paper cups and here are the things to make a row just like it. I'd like you to make a row just like this one." (Wait for response.)

## IX

SEQUENCING

# G.P.1

## Exercise C

four identical 3 1/2-ounce paper cups

four identical cotton balls

four identical spools of thread

Have the child sit comfortably at a table for this exercise. Arrange two of the cups, two of the cotton balls, and two of the spools in the following sequence on the table from left to right: cup, cotton, spool, cup, cotton, spool. Guide the child's hand to each item as you discuss it.

"Here are some paper cups, cotton balls, and spools of thread. Here is a cup, a cotton ball, a spool, and a cup, a cotton ball, and a spool."

---

Place the remaining items in another area on the table that the child can reach. Guide the child's hand to the random group of items and again to the initial row of items.

"Here are more paper cups, cotton balls and spools."

---

Carefully guide the child's hand on the objects as you discuss them from left to right. Have the child help you move the objects into position to make a duplicate row in front of the initial row of items. Help the child feel and compare each row when completed.

"Let's make a row with them that is just like this row. Here is a paper cup. Let's put another paper cup in front of it."

"Here is a cotton ball. Let's put another cotton ball in front of it."

"Next is a spool. Let's put another spool in front of it. What's next?" (Wait for response.)

"Next is a paper cup. Let's put another paper cup in front of it."

(continued)

# G.P.1

"Next is a cotton ball. Let's put another cotton ball in front of it. What's next?" (Wait for response.)

"Next is a spool. Let's put another spool in front of it."

"That's all. We've finished our row. Feel each row. They're the same." (Wait for response.)

Remove the items in the second row and place them in an area on the table that the child can reach. Guide the child's hand to the initial row of items and to the random group of items as you discuss them. Help the child make the second row from left to right only if necessary.

"Now let's see you do it. Here is a row of paper cups, cotton balls, and spools, and here are the things to make a row just like it. I'd like you to make a row just like this one." (Wait for response.)

# G.P. 1

## Exercise D

six identical 3 1/2-ounce paper cups

six identical spools of thread

Have the child sit comfortably at a table for this exercise. Arrange three of the paper cups and three of the spools in the following sequence on the table from left to right: paper cup, spool, paper cup, spool, paper cup, spool. Guide the child's hand to each item as you discuss it.

"Here are some paper cups and some spools of thread. Here are a paper cup and a spool, a paper cup and a spool, and another paper cup and a spool."

---

Place the remaining three cups and three spools in another area on the table that the child can reach. Guide the child's hand to the random group of items and again to the initial row of items. Help the child make the second row from left to right only if necessary.

"Here are some more paper cups and spools. I'd like you to make a row with them that is just like this row." (Wait for response.)

The child should be able to replicate the given sequence of objects in Exercise D without help from the teacher.

If the child is unable to replicate the given sequence, review the SEQUENCING Experiential Exercises and repeat Guided Presentation 1.

# Guided Presentation 2

**OBJECTIVE:** The child will be able to replicate a given sequence of sounds.

**PURPOSE:** These exercises will help the child learn to match a given set of sounds in a specific order.

**MATERIALS:** None.

# G.P.2

## Exercise A

| | |
|---|---|
| Have the child sit comfortably at a table for this exercise. | "I'm going to do something. Listen carefully because I'd like you to do it too. Listen." |
| Tap the table two times with one hand. | "Let's hear you do this." (Wait for response.) |
| Tap the table two times with one hand when indicated. Hold one of the child's arms and help the child perform the activity if necessary. | "I tapped the table two times with my hand, like this. Let's hear you do it again." (Wait for response.) |
| Repeat this tapping game until the child is able to replicate all the tapping sequences that follow. | "Are you ready for a game? Listen carefully to what I do because I'm going to change what I do and try to trick you. Then let's hear you do it." |
| Tap the table with one hand one time. Help the child perform the activity if necessary. | "Let's hear you do this." (Wait for response.) |
| Tap the table with one hand two times. Help the child perform the activity if necessary. | "Let's hear you do this." (Wait for response.) |
| Tap the table with one hand three times. Help the child perform the activity if necessary. | "Let's hear you do this." (Wait for response.) |

(continued)

# G.P.2

| | |
|---|---|
| Tap the table with one hand two times. Help the child perform the activity if necessary. | "Let's hear you do this." (Wait for response.) |

## G.P.2

### Exercise B

| | |
|---|---|
| Have the child sit comfortably for this exercise. | "I'm going to do something. Listen carefully because I'd like you to do it too. Listen." |
| Clap your hands two times. | "Let's hear you do this." (Wait for response.) |
| Clap your hands two times. Hold the child's arms close to the wrist and help the child perform the activity if necessary. | "I clapped my hands two times like this. Let's hear you do it again." (Wait for response.) |
| Repeat this clapping game until the child is able to replicate all of the clapping sequences that follow. | "Are you ready for another game? Listen carefully to what I do because I'm going to change what I do and try to trick you. Then let's hear you do it." |
| Clap your hands one time. Help the child perform the activity if necessary. | "Let's hear you do this." (Wait for response.) |
| Clap your hands two times. Help the child perform the activity if necessary. | "Let's hear you do this." (Wait for response.) |
| Clap your hands three times. Help the child perform the activity if necessary. | "Let's hear you do this." (Wait for response.) |
| Clap your hands two times. Help the child perform the activity if necessary. | "Let's hear you do this." (Wait for response.) |

# G.P.2

## Exercise C

| | |
|---|---|
| Have the child sit comfortably at a table for this exercise. | "I'm going to do something. Listen carefully because I'd like you to do it too. Listen." |
| Tap the table with one hand one time, then clap your hands one time. | "Let's hear you do it." (Wait for response.) |
| Tap the table once, then clap your hands once. Hold the child's hand(s) and help the child perform the activities if necessary. | "I tapped the table one time, then I clapped my hands one time. Let's hear you do it again." (Wait for response.) |
| Repeat this game until the child is able to replicate all of the tapping-clapping sequences that follow. | "Are you ready for a game? Listen carefully to what I do because I'm going to change what I do and try to trick you. Then let's hear you do it." |
| Tap the table one time, then clap your hands one time. Help the child perform the activities if necessary. | "Let's hear you do this." (Wait for response.) |
| Tap the table one time, then clap your hands one time. Repeat the pattern a total of two times (tap, clap; tap, clap). Help the child perform the activities if necessary. | "Let's hear you do this." (Wait for response.) |

(continued)

# G.P.2

## Exercise C

(continued)

| | |
|---|---|
| Tap the table one time, then clap your hands one time. Repeat the pattern a total of three times (tap, clap; tap, clap; tap, clap). Help the child perform the activities if necessary. | "Let's hear you do this." (Wait for response.) |
| Tap the table one time, then clap your hands one time. Repeat the pattern a total of two times (tap, clap; tap, clap). Help the child perform the activities if necessary. | "Let's hear you do this." (Wait for response.) |

# G.P.2

## Exercise D

| | |
|---|---|
| Have the child sit comfortably at a table for this exercise. | "I'm going to do something. Listen carefully because I'd like you to do it too. Listen." |
| Tap the table with one hand two times, then clap your hands two times. | "Let's hear you do it." (Wait for response.) |
| Tap the table twice, then clap your hands twice. Hold the child's hand(s) and help the child perform the activities if necessary. | "I tapped the table two times, then I clapped my hands two times. Let's hear you do it again." (Wait for response.) |
| Repeat this game until the child is able to replicate all of the tapping-clapping sequences that follow. | "Are you ready for a game? Listen carefully to what I do because I'm going to change what I do and try to trick you. Then let's hear you do it." |
| Tap the table two times, then clap your hands two times (tap, tap, clap, clap). Help the child perform the activities if necessary. | "Let's hear you do this." (Wait for response.) |
| Tap the table two times, then clap two times. Repeat the pattern a total of two times (tap, tap, clap, clap; tap, tap, clap, clap). Help the child perform the activities if necessary. | "Let's hear you do this." (Wait for response.) |

(continued)

# G.P.2

## Exercise D

(continued)

| | |
|---|---|
| Tap the table two times, then clap two times. Repeat the pattern a total of three times (tap, tap, clap, clap; tap, tap, clap, clap; tap, tap, clap, clap). Help the child perform the activities if necessary. | "Let's hear you do this." (Wait for response.) |

# G.P.2

## Exercise E

| | |
|---|---|
| Have the child sit comfortably at a table for this exercise. | "Are you ready for a game? Listen carefully to what I do because I'm going to change what I do and try to trick you. Then let's hear you do it." |
| Clap your hands one time, then tap the table two times (clap, tap, tap). Help the child perform the activities only if necessary. | "Let's hear you do this." (Wait for response.) |
| Clap your hands one time, then tap the table two times. Repeat the pattern a total of two times (clap, tap, tap; clap, tap, tap). Help the child perform the activities only if necessary. | "Let's hear you do this." (Wait for response.) |
| Clap your hands one time, then tap the table two times. Repeat the pattern a total of three times (clap, tap, tap; clap, tap, tap; clap, tap, tap). Help the child perform the activities only if necessary. | |

The child should be able to replicate all three sequences in Exercise E without help from the teacher.

If the child is unable to replicate all three sequences, review the SEQUENCING Experiential Exercises and Guided Presentation 1; repeat Guided Presentation 2.

# Guided Presentation 3

**OBJECTIVE:** The child will be able to describe a given sequence of events.

**PURPOSE:** These exercises are designed to help the child learn to place a series of events in a logical order of occurrence.

**MATERIALS:**

Exercise A
a paper cup full of water
a paper cup half-full of water
an empty paper cup
(The three cups should be identical.)

Exercise B
a whole cookie on a napkin
a half-eaten cookie on a napkin
an empty napkin
(The two cookies should be the same kind.)

Exercise C
a tube of toothpaste
a clean toothbrush
a toothbrush with toothpaste on it
*a paper cup full of water
(The toothbrushes should be identical.)

# G.P.3

## Exercise A

a paper cup full of water

a paper cup half-full of water

an empty paper cup

Have the child sit comfortably at a table for this exercise. Place the cup full of water, the cup half-full of water, and the empty paper cup in a row in the order stated from left to right in front of the child. Guide the child's hand to each object as you discuss it.

"Here are some things to feel. I'm going to tell you a story about them."

"Here is a cup of water that is full to the top. A little boy came along who was thirsty and saw a cup of water like this cup. He drank some water from the cup. Now the cup wasn't full anymore. It was like this cup. The boy decided that he was still thirsty, so he drank all the water in the cup. Now the water was all gone and the cup was empty like this cup."

---

Repeat the story one time.

"I'll tell you the story again."

---

"Can you tell me the story about the boy and the cup of water? Point to the cup that shows what you are saying." (Wait for response.)

---

If the child cannot relate the complete story in the appropriate sequence, continue as follows.

Guide the child's hand to the full cup of water.

"The thirsty boy saw the cup of water."

(continued)

# G.P.3

## Exercise A

(continued)

| | |
|---|---|
| Guide the child's hand to the half-full cup of water. | "He was so thirsty that he drank some water." |
| Guide the child's hand to the empty cup. | "But the boy was still thirsty, so he drank the water all up." |

---

Repeat the story to the child and have the child repeat it back to you until the child can describe the sequence of events.

# G.P.3
## Exercise B

Have the child sit comfortably at a table for this exercise. Place the whole cookie on a napkin, the half-eaten cookie on a napkin, and an empty napkin in a row in the order stated from left to right in front of the child. Guide the child's hand to each object as you discuss it.

"Here are some things to feel. I'm going to tell you a story about them."

"Here is a cookie on a napkin. A little girl was going to eat a cookie like this one for a snack. She went to wash her hands, and while she was gone, her puppy dog came by and saw the cookie. The little dog liked cookies as much as the little girl, so he took a big bite out of the cookie. Now the cookie was like this one. Well, the puppy couldn't stop with one bite, so the puppy ate the cookie all up. The puppy even licked the crumbs off the napkin. When the little girl came back to eat her cookie she saw an empty napkin like this."

a whole cookie on a napkin

a half-eaten cookie on a napkin

an empty napkin

Repeat the story one time.

"I'll tell you the story again."

"Can you tell me the story about the girl, the puppy, and the cookie? Point to the cookie and napkin that shows what you are saying." (Wait for response.)

If the child cannot relate the complete story in the appropriate sequence, continue as follows:

(continued)

# G.P.3

## Exercise B

(continued)

| | |
|---|---|
| Guide the child's hand to the whole cookie. | "The girl went to wash her hands before she had a cookie for a snack. But her puppy saw the cookie while she was gone." |
| Guide the child's hand to the half-eaten cookie. | "The puppy liked cookies and took a bit of the girl's cookie." |
| Guide the child's hand to the empty napkin. | "The puppy couldn't stop, so he ate the cookie all up and licked all the cookie crumbs from the napkin. When the girl came back, she saw that her cookie was gone." |

---

Repeat the story to the child and have the child repeat it back to you until the child can describe the sequence of events.

# G.P.3
## Exercise C

- a tube of toothpaste
- a clean toothbrush
- a toothbrush with toothpaste on it
- a paper cup full of water

| | |
|---|---|
| Have the child sit comfortably at a table for this exercise. Place the toothpaste and toothbrush (parallel to one another), the toothbrush with toothpaste on it, and then the paper cup in a row in the stated order from left to right in front of the child. Guide the child's hand to each object as you discuss it. | "Here are some things to feel. I'm going to tell you a story about them."<br>"Here are a tube of toothpaste and a toothbrush. A little boy, whose name is Jeffrey, is very proud of himself because he knows how to brush his teeth. First he gets the toothpaste and his toothbrush, like these. He squeezes some toothpaste from the tube onto the toothbrush. Now his toothbrush looks like this. It has some toothpaste on it. Now he can brush his teeth. To get the toothpaste out of his mouth Jeffrey rinses his mouth with water from a cup like this. Now Jeffrey's teeth are clean." |

---

| | |
|---|---|
| | "Listen again. Jeffrey is very proud because he can brush his teeth all by himself." |
| Guide the child's hand to the toothpaste and empty toothbrush. | "Jeffrey gets the toothpaste and his toothbrush." |
| Guide the child's hand to the toothbrush with toothpaste on it. | "Jeffrey puts toothpaste on his toothbrush and brushes his teeth." |
| Guide the child's hand to the cup of water. | "Jeffrey rinses his mouth with water from a cup. Now his teeth are clean." |

(continued)

## G.P.3

### Exercise C

(continued)

| | |
|---|---|
| The child should relate the correct sequence of events in the story by giving at least one statement for each of the three sets of objects from left to right. | "Can you tell me the story about Jeffrey and how he brushes his teeth? Point to the things that show what you are saying." (Wait for response.) |

The child should be able to describe the sequence of events in Exercise C in the given order without help from the teacher.

If the child is unable to describe the sequence of events in the given order, review the SEQUENCING Experiential Exercises and Guided Presentations 1 and 2; repeat Guided Presentation 3.

# Posttest

**Materials**

six large identical buttons
six identical beans (lima, pinto, etc.)
a baby food jar filled with peanuts
a baby food jar half-filled with peanuts
an empty baby food jar

**Test**

Have the child sit comfortably at a table for this posttest.

1a. Arrange three buttons and three beans in the following sequence on the table from left to right: button, bean, button, bean, button, bean. Place three more buttons and three more beans in a random group on the table, away from the ordered row.

SAY: "Here are some buttons and some beans in a row. I'd like you to make a new row just like this row with the buttons and beans in this pile."

2a. SAY: "Listen carefully to what I do. Let's hear you do it." (Stamp your foot one time, then clap your hands two times.)

b. SAY: "Listen carefully to what I do. Let's hear you do it." (Stamp your foot one time, then clap your hands one time. Repeat this basic pattern a total of three times [stamp, clap; stamp, clap; stamp, clap].)

3a. Place the three baby food jars in front of the child, in the following order from left to right: the full jar, the half-filled jar, and the empty jar. Guide the child's hand to the objects as you discuss them.

SAY: "Here are some things to feel. Listen carefully to this story about them:

"Alice wants to eat some peanuts. Her peanuts are in a jar like this one." (Guide the child's hand to the full jar.)

"Alice opens the jar, takes out a handful of peanuts, and eats them. Now her jar of peanuts is like this." (Guide the child's hand to the half-filled jar.)

"Alice really likes the peanuts, so she finishes them all up. Only the empty jar is left. It is like this. Alice loved her peanuts." (Guide the child's hand to the empty jar.)

"I'd like you to tell me the story about Alice and the peanuts. Point to the things that show what you are saying." (The child should relate the correct sequence of events in the story by giving at least one appropriate statement about each of the three objects from left to right.)

If the child accurately responds to all of the above items, he or she has demonstrated an understanding of the concept sequencing.

X

SORTING

# UNIT X : CLASSIFICATION

## LESSON 1 : SORTING INTO CATEGORIES

## X

SORTING

# Pretest

**Materials**

five spools of thread (any color)
five small paper cups
five dominoes, checkers, or wooden blocks
two standard envelopes
two index cards
two napkins
two quarters
two metal spoons
two house keys
two children's socks
a child's shoe
a child's slipper or sandal
a pair of blunt scissors
a paintbrush
a piece of colored construction paper

**Test**

1. Present the five spools of thread, the five dominoes (or similar objects), and the five small paper cups to the child.

   SAY: "Here are some things for you to feel. I'd like you to sort all the spools of thread into one pile, all the paper cups into another pile, and all the dominoes (or checkers, etc.) into another pile."

If this task is completed correctly, go on to Question 2.

If this task is not completed correctly, the child should concentrate on the SORTING Experiential Exercises and begin with Guided Presentation 1.

2. Present the two envelopes, the two index cards, the two napkins, the two quarters, the two metal spoons, and the two house keys to the child.

SAY: "Here are some more things for you to feel. I'd like you to sort all the paper things into one pile and all the hard, metal things into another pile."

If this task is completed correctly, go on to Question 3.

If this task is not completed correctly, the child should begin with Guided Presentation 2.

# Pretest

3. Present the socks, the shoe, the slipper or sandal, the pair of scissors, the paintbrush, and the piece of construction paper to the child.

SAY: "Here are more objects for you to sort. Put all the things we wear on our feet into one pile and all the things we can use to make things into another pile."

If this task is completed correctly, go on to the next set of concepts.

If this task is not completed correctly, the child should begin with Guided Presentation 3.

# X

## SORTING

# Experiential

For these exercises, sorting means separating or arranging a group of things according to a characteristic they have in common.

1. Hold two objects in your hand, such as a marble and a penny. Ask the child which of the two objects he or she likes best. Then give the child a container filled with marbles and pennies and ask the child to pick out either all the marbles or all the pennies (whichever the child preferred).

2. Prepare baby-food jars containing different scents. Each jar should contain a cotton ball to absorb a scented substance such as cloves, vanilla extract, vinegar, almond flavoring, mint flavoring, cinnamon, perfume, orange, etc. Ask the child to put all the scents that he or she likes in one place and all the scents that he or she dislikes in another place.

3. Give the child a tray containing some objects that are very light in weight and some objects that are very heavy. Ask the child to put all the lightweight objects in one pile and all the heavy objects in another pile.

# Exercises

4. Give the child squares of sandpaper of differing textures, and squares of smooth materials. Ask the child to put all the rough squares in one pile and all the smooth squares in another pile.

**FOR THE CHILD WITH VISION**

5. Give the child a tray containing various objects. Ask the child to pick out all the objects of a specific color.

# Guided Presentation 1

**OBJECTIVE:** The child will be able to sort sets of objects into given categories that are named by the teacher.

**PURPOSE:** These exercises will help the child learn to group objects according to their specific object names.

**MATERIALS:** Exercise A

five cheerios
five cotton balls
five rubber bands
five shelled peanuts

Exercise B

*five cotton balls
five pipe cleaners
five plastic or metal spoons
five plastic or metal forks

Exercise C

five paper clips
five pinto beans
five quarters
*five rubber bands

# G.P.1

## Exercise A

X

SORTING

| | |
|---|---|
| The child should be seated comfortably at a table for this exercise. Sit next to the child. Present the cheerios, cotton balls, rubber bands, and peanuts to the child. | "Here are some things for you to feel." |
| Help the child, if necessary. | "I'd like you to hand me all the peanuts." (Wait for response.) |
| Let the child feel the peanuts in your hand. | "Now I have a handful of peanuts." |
| Place the peanuts in a new pile to the left of the original pile. Let the child help you. | "Let's put the peanuts that you sorted into a pile here." |
| Help the child, if necessary. | "Please hand me all the cheerios." (Wait for response.) |
| Let the child feel the cheerios in your hand. | "Now I have a handful of cheerios." |
| Place the cheerios in a new pile to the right of the original pile. Let the child help you. | "Let's put all the cheerios that you sorted into a pile here." |
| | "You can eat the cheerios and peanuts if you'd like." |

**five cheerios**
**five cotton balls**
**five rubber bands**
**five shelled peanuts**

# G.P.1

## Exercise B

**five cotton balls**
**five pipe cleaners**
**five plastic or metal spoons**
**five plastic or metal forks**

| | |
|---|---|
| The child should be seated comfortably at the table for this exercise. Sit next to the child. Present the cotton balls and pipe cleaners, mixed together, to the child. | "Here are some cotton balls and some pipe cleaners." |
| Help the child begin the sorting process by taking a cotton ball from the original pile and placing it to the left of the original pile as you talk. Likewise, take a pipe cleaner from the original pile and place it to the right of the original pile as you talk. Help the child continue the sorting process if necessary. | "Let's sort all the cotton balls into one pile here and all the pipe cleaners into another pile here. Let's see you sort them now." (Wait for response.) |
| Place the child's hand on the cotton ball pile when you identify it. | "Where are all the cotton balls?" (Wait for response.)<br>"The cotton balls are in this pile." |
| Place the child's hand on the pipe cleaner pile when you identify it. | "Where are all the pipe cleaners?" (Wait for response.)<br>"The pipe cleaners are in this pile." |

(continued)

# G.P.1

| | |
|---|---|
| Remove the cotton balls and pipe cleaners. Now present the spoons and forks to the child. | "Here are some things we use when we are eating. Some are spoons and some are forks." |
| Help the child begin the sorting process by taking a spoon from the original pile and placing it to the left of the original pile as you talk. Likewise, take a fork from the original pile and place it to the right of the original pile as you talk. Help the child continue the sorting process if necessary. | "Let's sort all the spoons into one pile here and all the forks into one pile here. Let's see you sort them now." (Wait for response.) |
| Place the child's hand on the spoon pile when you identify it. | "Where are all the spoons?" (Wait for response.)<br>"The spoons are in this pile." |
| Place the child's hand on the fork pile when you identify it. | "Where are all the forks?" (Wait for response.)<br>"The forks are in this pile." |

# G.P.1

## Exercise C

**five paper clips**
**five pinto beans**
**five quarters**
**five rubber bands**

| | |
|---|---|
| The child should be seated comfortably at a table for this exercise. Present five paper clips, five pinto beans, five quarters, and five rubber bands to the child. Guide the child's hand to an example of each object as you name them. | "Here are some things for you to feel: paper clips, beans, quarters, and rubber bands." |
| Help the child begin and perform the sorting process only if necessary. | "I'd like you to sort all the paper clips into one pile and all the beans into another pile." (Wait for response.) |
| Mix all the objects together again to form one pile. | "Now I've mixed all the paper clips, beans, quarters, and rubber bands back together." |
| Help the child begin and perform the sorting process only if necessary. | "Now I'd like you to sort all the quarters into one pile and all the rubber bands into another pile." (Wait for response.) |

The child should be able to correctly sort the objects into all four categories in Exercise C without help from the teacher.

If the child is unable to sort the objects into the four given categories, review the SORTING Experiential Exercises and repeat Guided Presentation 1.

# Guided Presentation 2

**OBJECTIVE:** The child will be able to sort sets of objects into given categories according to the general physical properties of the objects.

**PURPOSE:** These exercises will help the child learn to group objects according to their general physical properties. They require the child to analyze object attributes before any grouping can be accomplished.

**MATERIALS:** Exercise A

five round buttons
five cheerios
five pipe cleaners
five cotton swabs

Exercise B

two 6 or 8-ounce paper cups
two paper lunch plates
two paper clips
two quarters

two cotton balls
two squares of soft material (about 3 inches square)
two plastic or metal spoons
two pinto beans

**MATERIALS:** (continued)

Exercise C

two pencils
two drinking straws
* two pipe cleaners
two raisins
* two paper clips
* two round buttons
* two cheerios
* two quarters
two square crackers
two square potholders

# G.P.2

## Exercise A

X

SORTING

|  |  |
|---|---|
| The child should be seated comfortably at a table for this exercise. Sit next to the child. Present the buttons, cheerios, pipe cleaners, and cotton swabs to the child. | "Here are some things for you to feel." |
| Help the child if necessary. Put the round objects in one of your hands and let the child feel them. | "I'd like you to hand me all the things that are round like a circle." (Wait for response.)<br>"Now I have a handful of round things." |
| Place the round objects in a new pile to the left of the original pile. Let the child help you. | "Let's put the round things that you sorted into a pile here." |
| Help the child if necessary. Put the long, thin objects in one of your hands and let the child feel them. | "Please hand me all the things that are long and thin." (Wait for response.)<br>"Now I have a handful of long, thin things." |
| Place the selected objects to the right of the original pile. Let the child help you. | "Let's put all the long, thin things that you sorted into a pile here." |

**five round buttons**
**five cheerios**
**five pipe cleaners**
**five cotton swabs**

(continued)

# G.P.2

## Exercise A

(continued)

Help the child find the pile of round objects and sort out the cheerios, if necessary. Make certain that no buttons are in the child's hand before allowing the child to eat the cheerios.

"Where is the pile of round things?" (Wait for response.)

"Here is the round pile. It has cheerios and buttons in it. Put all the cheerios in your hand." (Wait for response.)

"You can eat the cheerios if you'd like."

# G.P.2

## Exercise B

SORTING

| | |
|---|---|
| The child should be seated comfortably at a table for this exercise. Sit next to the child. Present the cups, plates, paper clips, and quarters to the child. | "Here are some big things and some little things." |
| Help the child begin the sorting process by taking a plate from the original pile and placing it to the left of the original pile as you talk. Likewise, take a paper clip from the original pile and place it to the right of the original pile as you talk. | "Let's sort all the big things into one pile here and all the little things into another pile here." |
| Help the child continue the sorting process if necessary by placing a cup in the big pile and a quarter in the little pile. | "Let's see you sort them all by yourself." (Wait for response.) |
| Place the child's hand on the big pile when you identify it. | "Where are all the big things?" (Wait for response.)<br>"The big things are in this pile." |
| Place the child's hand on the little pile when you identify it. | "Where are all the little things?" (Wait for response.)<br>"The little things are in this pile." |

(continued)

- two 6- or 8-ounce paper cups
- two paper lunch plates
- two paper clips
- two quarters
- two cotton balls
- two squares of soft material
- two plastic or metal spoons
- two pinto beans

## G.P.2
### Exercise B
(continued)

| | |
|---|---|
| Remove the big and little piles. Now present the cotton balls, cloth squares, spoons, and beans to the child. | "Here are some more things for you to feel." |
| Help the child begin the sorting process by taking a spoon from the original pile and placing it to the left of the original pile as you talk. Likewise, take a cotton ball from the original pile and place it to the right of the original pile as you talk. | "Let's sort all the hard things into one pile here and all the soft things into one pile here." |
| Help the child continue the sorting process, if necessary, by placing a bean in the pile of hard things and a cloth square in the pile of soft things. | "Now let's see you sort them all by yourself." |
| Place the child's hand on the hard pile when indicated. | "Where are all the hard things?" (Wait for response.)<br>"The hard things are in this pile." |
| Place the child's hand on the soft pile when indicated. | "Where are all the soft things?" (Wait for response.)<br>"The soft things are in this pile." |

# G.P.2

## Exercise C

X

SORTING

| | |
|---|---|
| The child should be seated comfortably at a table for this exercise. Present the pencils, straws, pipe cleaners, raisins, and paper clips to the child. | "Here are some more things for you to sort." |
| Help the child begin and perform the sorting process only if necessary. | "It's your turn to sort all the long, thin things into one pile and all the short things into another pile." (Wait for response.) |
| Remove the objects and present the buttons, cheerios, quarters, crackers, and potholders to the child. | "I'd like you to sort these objects now." |
| Help the child begin and perform the sorting process only if necessary. | "I'd like you to sort all the round things into one pile and all the square things into another pile." (Wait for response.) |

two pencils
two drinking straws
two pipe cleaners
two raisins
two paper clips
two round buttons
two cheerios
two quarters
two square crackers
two square potholders

The child should be able to correctly sort the objects into all four categories in Exercise C without help from the teacher.

If the child is unable to sort the objects into the four given categories, review the SORTING Experiential Exercises and Guided Presentation 1; repeat Guided Presentation 2.

# Guided Presentation 3

**OBJECTIVE:** The child will be able to sort sets of objects into given categories according to the function of the objects.

**PURPOSE:** These exercises will help the child learn to group objects according to their general functions. They require that the child analyze and understand object function before any grouping can be accomplished.

**MATERIALS:**

Exercise A

five crackers
five cookies
two children's socks
two children's T-shirts

Exercise B

three favorite small toys
a plastic or metal spoon
a paper cup
a paper lunch plate
a child's shoe
*a child's sock
a child's slipper

(continued)

# G.P.3

**MATERIALS:** (continued)

a brush
a pocket comb
a comb with a handle

Exercise C

a drinking straw
*a paper cup
a paper or plastic cup with a handle
five raisins
five shelled peanuts

a bar of soap
a tube of toothpaste
a washcloth
a wallet
a woman's small purse
a plastic piggy bank with coins in it

# G.P.3

## Exercise A

**five crackers**
**five cookies**
**two children's socks**
**two children's T-shirts**

| | |
|---|---|
| The child should be seated comfortably at a table for this exercise. Sit next to the child. Present the crackers, cookies, socks, and T-shirts to the child. | "Here are some things for you to feel." |
| Help the child if necessary. Put all the selected objects into a new pile to the left of the original pile as the child hands each object to you. | "I'd like you to hand me all the things that are good to eat." (Wait for response.) |
| Let the child feel the new pile. | "I've put the things that are good to eat in a pile here." |
| Help the child if necessary. Put all the selected objects into another pile to the right of the original pile as the child hands each object to you. | "Now hand me all the things that we can wear." (Wait for response.) |
| Let the child feel the new pile. | "I've put the things that we can wear into a pile here." |
| Help the child if necessary. | "Where is the pile of things that are good to eat?" (Wait for response.) |

(continued)

X

SORTING

# G.P.3

Help the child find the food pile and sort the crackers if necessary.

"This is the food pile. It has crackers and cookies in it. Put all the crackers in your hand." (Wait for response.)

"You can eat the crackers if you'd like."

X

SORTING

# G.P.3

## Exercise B

- three favorite small toys
- a plastic or metal spoon
- a paper cup
- a paper lunch plate
- a child's shoe
- a child's sock
- a child's slipper
- a brush
- a pocket comb
- a comb with a handle

| | |
|---|---|
| The child should be seated comfortably at a table for this exercise. Sit next to the child. Present the toys, spoon, cup, and plate to the child. | "Here are some things we use for playing and some things we use for eating." |
| Help the child begin the sorting process by taking a toy from the original pile and placing it to the left of the original pile as you talk. Likewise, take a spoon from the original pile and place it to the right of the original pile as you talk. | "Let's sort all the things we use for playing into one pile here and all the things we use for eating into another pile here." |
| Help the child continue the sorting process if necessary. | "Let's see you sort them all by yourself." (Wait for response.) |
| Place the child's hand on the toy pile when you identify it. | "Where are all the things for playing?" (Wait for response.)<br>"The things for playing are in this pile." |
| Place the child's hand on the utensil pile when you identify it. | "Where are the things for eating?" (Wait for response.)<br>"The things for eating are in this pile." |

(continued)

# G.P.3

X

SORTING

| | |
|---|---|
| Remove the objects. Now present the shoe, sock, slipper, brush, and both combs to the child. | "Here are some more things for us to sort." |
| Help the child begin the sorting process by taking a sock from the original pile and placing in to the left of the original pile as you talk. Likewise, take a comb from the original pile and place it to the right of the original pile as you talk. | "Let's sort all the things that we put on our feet into one pile here and all the things that we use for our hair into one pile here." |
| Help the child continue the sorting process if necessary. | "Now let's see you sort them all by yourself." (Wait for response.) |
| Place the child's hand on the footwear pile when you identify it. | "Where are all the things we can put on our feet?" (Wait for response.)<br>"The things we put on our feet are in this pile." |
| Place the child's hand on the hair grooming pile when you identify it. | "Where are the things we use for our hair?" (Wait for response.)<br>"The things we use for our hair are in this pile." |

X

SORTING

# G.P.3

## Exercise C

a drinking straw
a paper cup
a paper or plastic with a handle
five raisins
five shelled peanuts
a bar of soap
a tube of toothpaste
a washcloth
a wallet
a woman's small purse
a plastic piggy bank with coins

| | |
|---|---|
| The child should be seated comfortably at a table for this exercise. Present the drinking straw, paper cup, cup with a handle, raisins, and peanuts to the child. | "Here are some things for you to sort." |
| Help the child begin and perform the sorting process only if necessary. | "I'd like you to sort all the things that we use for drinking into one pile and all the things that we eat into another pile." (Wait for response.) |
| Remove the objects and present the bar of soap, toothpaste, washcloth, wallet, purse, and piggy bank to the child. | "Here are some more things I'd like you to sort." |
| Help the child begin and perform the sorting process only if necessary. | "I'd like you to sort the things that we use to keep clean into one pile and the things in which we put our money into another pile." (Wait for response.) |

The child should be able to correctly sort the objects into all four categories in Exercise C without help from the teacher.

If the child is unable to sort the objects into the four given categories, review the SORTING Experiential Exercises and Guided Presentations 1 and 2; repeat Guided Presentation 3.

# Posttest

**Materials**

five spools of thread (any color)
five small paper cups
five dominoes, checkers, or wooden blocks
two standards envelopes
two index cards
two napkins
two quarters
two metal spoons
two house keys
two children's socks
a child's shoe
a child's slipper or sandal
a pair of blunt scissors
a paintbrush
a piece of colored construction paper

**Test**

1. Present the five spools of thread, the five dominoes (or similar objects), and the five small paper cups to the child. SAY: "Here are some things for you to feel. I'd like you to sort all the spools of thread into one pile, all the paper cups into another pile, and all the dominoes (or checkers, etc.) into another pile."

2. Present the two envelopes, the two index cards, the two napkins, the two quarters, the two metal spoons, and the two house keys to the child.

   SAY: "Here are some more things for you to feel. I'd like you to sort all the paper things into one pile and all the hard, metal things into another pile."

3. Present the socks, the shoe, the slipper or sandal, the pair of scissors, the paintbrush, and the piece of construction paper to the child.

   SAY: "Here are more objects for you to sort. Put all the things we wear on our feet into one pile and all the things we can use to make things into another pile."

If the child accurately responds to all of the above items, he or she has demonstrated an understanding of the concept sorting into given categories.

X

SELECTING

# UNIT X : CLASSIFICATION

## LESSON 2 : SELECTING CATEGORIES FOR GROUPING

# Pretest

**Materials**

- six small, identical, individually-wrapped pieces of hard candy
- six identical large wooden beads
- a shoelace
- a 12-inch strip of wide ribbon
- a 10-inch piece of yarn
- a quarter
- a peanut in a shell
- a piece of popcorn
- a tube of toothpaste
- a toothbrush

**Test**

If the child chooses a category that is different from the intended grouping strategy but which has a logical basis, the teacher should consider the response acceptable.

1a. Present the candy and the beads mixed together to the child.

SAY: "I'd like you to sort these things into two piles so that only the things that are exactly the same are in each pile." (Wait for the child to complete the task.)

b. Indicate the first pile.

SAY: "What did you put in this pile?"

c. Indicate the second pile.

SAY: "What did you put in this pile?"

If all three sorting and naming items are completed correctly, go on to Question 2.

If one or more items are completed incorrectly, the child should concentrate on the SELECTING Experiential Exercises and begin with Guided Presentation 1.

2a. Present the shoelace, the ribbon, the yarn, one piece of candy, one bead, and the quarter to the child.

SAY: "I'd like you to sort all of these things into two piles so that the things that are most alike are in each pile."

b. Indicate the first pile.

SAY: "Why did you put these in this pile?"

c. Indicate the second pile.

SAY: "Why did you put these in this pile?'

# Pretest

If all three sorting and naming items are completed correctly, go on to Question 3.

If one or more items are completed incorrectly, the child should begin with Guided Presentation 2.

3a. Present one piece of candy, the peanut, the piece of popcorn, the toothpaste, and the toothbrush to the child.

SAY: "I'd like you to sort all of these things into two piles so that the things that we use in the same way are in each pile."

b. Indicate the first pile.

SAY: "Why did you put these things in this pile?"

c. Indicate the second pile.

SAY: "Why did you put these things in this pile?"

If all three sorting and naming items are completed correctly, the child does not need to go through the exercises in this lesson.

If one or more items are completed incorrectly, the child should begin with Guided Presentation 3.

# Experiential Exercises

X

SELECTING

For these exercises, selecting means determining the common characteristic by which to separate or arrange a group of objects.

The child may choose categories for grouping that are different from the obvious ones used in the exercises but which are nonetheless logical and correct. The teacher should be ready to accept the alternative categories chosen by the child if the rationale behind the choice of categories is reasonable.

1. Mix some nuts and bolts (or equivalent objects) together. Give the child two bowls and ask the child to sort the objects into two piles, putting similar objects in the same bowl. Discuss the child's rationale for grouping the objects.

2. Give the child a tray containing light- and heavy-weight objects. Ask the child to put the objects that are alike together, then discuss the child's rationale for grouping the objects.

3. Give the child a tray containing simple musical instruments (bells, cymbals, triangles) and some cooking utensils. Ask the child to group together objects that are used for the same purpose, then discuss the child's rationale for grouping the objects.

4. Give the child a bowl of paper clips and 1-inch pieces of knitting yarn. Then give the child a magnet to place in the bowl. After the child has experimented with the magnet, ask the child to separate the objects into two piles, using the magnet. Discuss the characteristics of the paper clips that cause them to be attracted by the magnet.

5. Give the child a bowl of rice with marbles (or equivalent objects) mixed in. Then give the child a colander or coarse sifter and let the child experiment with separating the rice from the marbles. Discuss the rationale behind the separation process with the child so that the child understands that big objects are separated from little ones. Give the child other combinations of objects to process through the sifter.

# Exercises

6. Give the child a tray containing objects of two different colors. Ask the child to sort the objects into two piles, then discuss the child's rationale for grouping the objects.

**FOR THE CHILD WITH VISION**

# Guided Presentation 1

**OBJECTIVE:** The child will be able to select categories for grouping two discrete sets of objects so that each set contains objects that are exactly alike.

**PURPOSE:** These exercises are designed to help the child learn to match and classify objects on the basis of their physical properties.

**MATERIALS:** Exercise A

five pieces of popcorn
five shelled peanuts

Exercise B

five tablespoons
five forks

Exercise C

five white paper dinner plates
five white paper napkins
five drinking straws
five identical envelopes

# G.P.1

## Exercise A

five pieces of popcorn

five shelled peanuts

| | |
|---|---|
| Have the child sit comfortably at a table. Present the popcorn and peanuts, mixed together, to the child. | "Here are things that people like to eat." |
| Indicate specific areas on the table and guide the child's hand to the areas. | "We're going to sort the food into two piles, one here and one here. We are going to put some things that are exactly the same into one pile here." |
| The child can select either a piece of popcorn or a peanut. | "I'd like you to show me one thing that we can use to start this pile." (Wait for response.) |
| Place the object chosen by the child in the designated area on the table. If the child doesn't select an object, place a piece of popcorn in the designated area. | "Let's put this here to start our pile. Do you know its name?" (Wait for response.)<br>"It's (name popcorn or a peanut)." |
| Indicate a specific area on the table and guide the child's hand to the area. | "Now we're going to find a different thing that we can use to start our other pile here." |
| The child should select the alternate object. | "What can we use to start this pile?" (Wait for response.) |

(continued)

# G.P.1
## Exercise A

(continued)

| | |
|---|---|
| Place the object chosen by the child in the designated area on the table. If the child doesn't select an object or chooses the wrong one, place the appropriate object in the designated area. | "Let's put this here to start our other pile. Do you know its name?" (Wait for response.)<br>"It's (name popcorn or a peanut)." |
| Show the child the designated pile if necessary. | "Where will we make our popcorn pile?" (Wait for response.)<br>"Where will we make our peanut pile?" (Wait for response.) |
| Help the child complete the sorting process only if necessary. | "Now we're ready to sort all the food into our two piles. I'd like you to sort all the popcorn into our popcorn pile and all the peanuts into our peanut pile." (Wait for response.)<br>"You can eat the popcorn if you'd like." |

# G.P.1

## Exercise B

X

SELECTING

| | |
|---|---|
| Have the child sit comfortably at a table. Present the spoons and forks, mixed together, to the child. | "Here are some things that we use for eating." |
| Indicate the specific areas on the table and guide the child's hand to the areas. | "We're going to sort them into two piles, one here and one here. We are going to put some things that are the same into one pile here." |
| The child can select either a spoon or a fork. | "I'd like you to show me one thing that we can use to start this pile." (Wait for response.) |
| Place the object chosen by the child in the designated area on the table. If the child doesn't select an object, place a spoon in the designated area. | "Let's put this here to start our pile. Do you know its name?"<br>"It's a (name spoon or fork)." |
| Indicate a specific area on the table and guide the child's hand to the area. | "Now we're going to find a different thing that we can use to start our other pile here." |
| The child should select the alternate object. | "What can we use to start this pile?" (Wait for response.) |

five tablespoons
five forks

(continued)

# G.P.1

## Exercise B

(continued)

| | |
|---|---|
| Place the object chosen by the child in the designated area on the table. If the child doesn't select an object or chooses the wrong one, place the appropriate object in the designated area. | "Let's put this here to start our other pile. Do you know its name?" (Wait for response.)<br>"It's a (name spoon or fork)." |
| Show the child the designated pile if necessary. | "Where will we make our spoon pile?" (Wait for response.)<br>"Where will we make our fork pile?" (Wait for response.) |
| Help the child complete the sorting only if necessary. | "Now we're ready to sort all the things into our two piles. I'd like you to sort all the spoons into our spoon pile and all the forks into our fork pile." (Wait for response.) |

# G.P.1

## Exercise C

X

SELECTING

| | |
|---|---|
| Have the child sit comfortably at a table. Present the plates and napkins, mixed together, to the child. | "Here are some things for you to feel." |
| Indicate the specific areas on the table and guide the child's hand to the area. Help the child only if necessary. | "I'd like you to sort these things into two piles, one here and one here. Put one kind of thing into one pile and the other kind of thing into the other pile." (Wait for response.) |
| Indicate the napkin pile. | "What did you put in this pile?" (Wait for response.)<br>"This is the napkin pile." |
| Indicate the plate pile. | "What did you put in this pile?" (Wait for response.)<br>"This is the plate pile." |
| Remove the objects and present the straws and envelopes, mixed together, to the child. | "Here are more things." |
| Indicate the specific areas on the table and guide the child's hand to the areas. Help the child only if necessary. | "I'd like you to sort these things into two piles, one here and one here. Put one kind of thing into one pile and the other kind of thing into the other pile." (Wait for response.) |

(continued)

**five white paper dinner plates**

**five white paper napkins**

**five drinking straws**

**five identical envelopes**

## G.P.1

### Exercise C

(continued)

| | |
|---|---|
| Indicate the straw pile. | "What did you put in this pile?"<br>(Wait for response.)<br>"This is the straw pile." |
| Indicate the envelope pile. | "What did you put in this pile?"<br>(Wait for response.)<br>"This is the envelope pile." |

The child should be able to select and name the categories for grouping in the two activities in Exercise C without help from the teacher.

If the child is unable to select and name the categories in both activities, review the SELECTING Experiential Exercises and repeat Guided Presentation 1.

# Guided Presentation 2

**OBJECTIVE:** The child will be able to select categories for grouping two sets of objects which are dissimilar in some characteristics but which have one obvious physical property in common.

**PURPOSE:** These exercises are designed to help the child learn to classify objects by comparing similar and dissimilar properties.

**MATERIALS:** Exercise A

- a round button
- a quarter
- a roll of masking tape
- a round coffee can lid
- a square block
- a square soda cracker
- a square potholder

Exercise B

- a drinking straw
- a pipe cleaner
- a pencil
- a paper clip
- a bobby pin
- a birthday candle

(continued)

**MATERIALS:** (continued)

Exercise C

a sandpaper circle
a sandpaper square
a sandpaper triangle
a sandpaper oval
a cloth circle
a cloth square
a cloth triangle
a cloth oval

(All of the above shapes should be about the same size. The cloth shapes should be similar in color to the sandpaper and made of soft material.)

a spoon
a crayon
a ruler
a cotton ball
a small ball of yarn
a circular piece of terrycloth

(The above objects should be of different colors.)

# G.P.2

## Exercise A

X

SELECTING

| | |
|---|---|
| Have the child sit comfortably at a table. Present the button, quarter, tape, lid, block, cracker, and potholder, mixed together, to the child. | "Here are some shapes." |
| Indicate the specific areas on the table and guide the child's hand to the areas. | "We're going to sort them into two piles, one here and one here. We are going to put the things that are one shape into a pile here." |
| The child can select either a circular or a square object. | "I'd like you to show me one thing that we can use to start this pile." (Wait for response.) |
| Place the object chosen by the child in the designated area on the table. If the child doesn't select an object, place a cracker in the designated area. | "Let's put this here to start our pile. Do you know what shape this is?" (Wait for response.)<br>"It's a (name square or circle)." |
| Indicate a specific area on the table and guide the child's hand to the area. | "Now we're going to find a different shape to start our other pile here." |

(continued)

a round button

a quarter

a roll of masking tape

a round coffee can lid

a square block

a square soda cracker

a square potholder

# G.P.2

## Exercise A

(continued)

| | |
|---|---|
| The child should select an object belonging to the second category. | "What can we use to start this pile?" (Wait for response.) |
| Place the object chosen by the child in the designated area on the table. If the child doesn't select an object or chooses one from the wrong category, place an appropriate object in the designated area. | "Let's put this here to start our second pile. Do you know what shape this is?" (Wait for response.)<br>"It's a (name square or circle)." |
| Show the child the designated pile if necessary. | "Where will we make our square pile?" (Wait for response.)<br>"Where will we make our circle pile?" (Wait for response.) |
| Help the child complete the sorting if necessary. | "Now we're ready to sort all the things into our two piles. I'd like you to sort all the square things into our square pile and all the circular things into our circle pile." (Wait for response.) |
| Help the child find the crackers if necessary. | "There are some crackers in the square pile that you can eat if you'd like." |

# G.P.2

## Exercise B

X

SELECTING

- a drinking straw
- a pipe cleaner
- a pencil
- a paper clip
- a bobby pin
- a birthday candle

| | |
|---|---|
| Have the child sit comfortably at a table. Present the straw, pipe cleaner, pencil, paper clip, bobby pin, and candle, mixed together, to the child. | "Here are some things to feel." |
| Indicate the specific areas on the table and guide the child's hand to the areas. | "We're going to sort these into two piles, one here and one here. We are going to put the things that are most alike into one pile." |
| The child can select a long or short object.<br>Place the object chosen by the child in the designated area on the table. If the child doesn't select an object, place a straw in the designated area. | "I'd like you to show me one thing that we can use to start this pile." (Wait for response.)<br>"Let's put this here to start our pile. Do you think that this is long or do you think that this is short?" (Wait for response.)<br>"It's (name long or short)." |
| Indicate a specified area and guide the child's hand to the area. | "Now we're going to find a different thing to start our other pile here." |

(continued)

## G.P.2
## Exercise B
(continued)

| | |
|---|---|
| The child should select an object belonging to the second category. Put the object chosen by the child in the designated area on the table. If the child doesn't select an object or chooses one from the wrong category, place an appropriate object in the designated area. | "Should we look for something short or should we look for something long?" (Wait for response.)<br>"Let's look for something (name short or long). What can we use to start this pile?" (Wait for response.)<br>"Let's put this here to start our second pile. Do you think that this is long or do you think that this is short?" (Wait for response.)<br>"It's (name short or long)." |
| Help the child complete the sorting if necessary. | "Now we're ready to sort all the things into our two piles. I'd like you to sort all the long things into our long pile and all the short things into our short pile." (Wait for response.) |

# G.P.2

## Exercise C

X

SELECTING

| | |
|---|---|
| Have the child sit comfortably at a table. Present the sandpaper and cloth shapes, mixed together, to the child. | "Here are some shapes for you to feel." |
| Indicate the specific areas on the table and guide the child's hand to the areas. Help the child only if necessary. | "I'd like you to sort these shapes into two piles, one here and one here. Put the things that are most alike into each pile." (Wait for response.) |
| Indicate the sandpaper pile. | "Why did you put these in this pile?" (Wait for response.)<br>"This is the sandpaper pile. All these shapes feel rough." |
| Indicate the cloth pile. | "Why did you put these in this pile?" (Wait for response.)<br>"This is the cloth pile. All these shapes feel smooth." |
| Remove the objects and present the spoon, crayon, ruler, yarn, cotton ball, and terrycloth, mixed together, to the child. | "Here are more things." |

(continued)

a sandpaper circle
a sandpaper square
a sandpaper triangle
a sandpaper oval
a cloth circle
a cloth square
a cloth triangle
a cloth oval

a spoon
a crayon
a ruler
a cotton ball
a small ball of yarn
a circular piece of terrycloth

# G.P.2

## Exercise C

(continued)

| | |
|---|---|
| Indicate the specific area on the table and guide the child's hands to the area. Help the child only if necessary. | "I'd like you to sort these things into two piles, one here and one here. Put the things that are most alike into each pile." (Wait for response.) |
| Indicate the long, hard pile. Accept either long or hard as a reasonable response from the child. | "Why did you put these in this pile?" (Wait for response.)<br>"This is the pile with things that are long and hard." |
| Indicate the round, soft pile. Accept either round or soft as a reasonable response from the child. | "Why did you put these in this pile?" (Wait for response.)<br>"All these things are round and soft." |

The child should be able to select and name categories for grouping in the two activities in Exercise C without help from the teacher.

If the child is unable to select and name the categories in both activities, review the SELECTING Experiential Exercises and Guided Presentation 1; repeat Guided Presentation 2.

# Guided Presentation 3

X

SELECTING

**OBJECTIVE:** The child will be able to select categories for grouping two sets of objects according to their function.

**PURPOSE:** These exercises are designed to help the child classify objects by comparing similar and dissimilar functions.

**MATERIALS:**

Exercise A

a spoon
a fork
a paper or plastic plate
a toothbrush
a bar of soap
a washcloth

Exercise B

a cracker
a cookie
a shelled peanut
a child's shoe
a child'a sock
a child's T-shirt

**MATERIALS:** (continued)

Exercise C

an apple
a slice of bread
a pretzel
a child's sweater
a child's sock
a child's pair of long pants

a hairbrush
a standard comb
a comb with a handle
three favorite toys

# G.P.3

## Exercise A

X

SELECTING

| | |
|---|---|
| Have the child sit comfortably at a table. Present the spoon, fork, plate, toothbrush, soap, and washcloth mixed together to the child. | "Here are some things we use everyday." |
| Indicate the specific areas on the table and guide the child's hand to the areas. | "We're going to sort them into two piles, one here and one here. We are going to put the things that we use in the same way into one pile here." |
| The child can select any object. Place the object selected by the child in the designated area on the table. If the child doesn't select an object, place a spoon in the designated area. | "I'd like you to show me one thing that can start this pile." (Wait for response.)<br>"Let's put this here to start our pile. Do you know what we use this for?" (Wait for response.)<br>"It's for (name eating or keeping clean)." |
| Indicate a specific area on the table and guide the child's hand to the area. | "Now we're going to find a thing we use in a different way to start our other pile here." |
| The child should select an object fitting into the second category. | "What can you find to start this pile?" (Wait for response.) |

(continued)

- a spoon
- a fork
- a paper or plastic plate
- a toothbrush
- a bar of soap
- a washcloth

# G.P.3
## Exercise A
(continued)

| | |
|---|---|
| Place the object chosen by the child in the designated area on the table. If the child doesn't select an object or chooses one from the wrong category, place an appropriate object in the designated area. | "Let's put this here to start our second pile. Do you know what we use this for?" (Wait for response.)<br>"It's for (name eating or keeping clean)." |
| Help the child complete the sorting if necessary. | "Now we're ready to sort all the things into our two piles. I'd like you to sort all the things we eat into our eating pile and all the things we use to keep clean into our keeping clean pile." (Wait for response.) |

# G.P.3

## Exercise B

X

SELECTING

| | |
|---|---|
| Have the child sit comfortably at a table. Present the cracker, cookie, shelled peanut, shoe, sock, and t-shirt mixed together to the child. | "Here are some things for kids." |
| Indicate the specific areas on the table and guide the child's hand to the areas. | "We're going to sort them into two piles, one here and one here. We are going to put the things that kids use the same way into one pile here." |
| The child can select any object. Place the object selected by the child in the designated area on the table. If the child doesn't select an object, place a cracker in the designated area. | "I'd like you to show me one thing that can start this pile." (Wait for response.)<br>"Let's put this here to start our pile. Do you know what this is for?" (Wait for response.)<br>"It's for (name eating or wearing)." |
| Indicate a specific area on the table and guide the child's hand to the area. | "Now we're going to find a thing kids use in a different way to start our other pile here." |
| The child should select an object fitting into the second category. Place the | "What can you find to start this pile?" (Wait for response.) |

- a cracker
- a cookie
- a shelled peanut
- a child's shoe
- a child's sock
- a child's T-shirt

(continued)

## G.P 3

## Exercise B

(continued)

| | |
|---|---|
| object chosen by the child in the designated area on the table. If the child doesn't select an object or chooses one from the wrong category, place an appropriate object in the designated area. | "Let's put this here to start our second pile. Do you know what this is for?" (Wait for response.)<br>"It's for (name eating or dressing)." |
| Help the child complete the sorting if necessary. | "Now we're ready to sort all the things into our two piles. I'd like you to sort all the things that we eat into our eating pile and all the things that we wear into our wearing pile." (Wait for response.) |

# G.P.3

## Exercise C

| | |
|---|---|
| Have the child sit comfortably at a table. Present the food and clothes mixed together to the child. | "Here are some things to sort." |
| Indicate the specific areas on the table and guide the child's hands to the areas. Help the child only if necessary. | "I'd like you to sort these things into two piles, one here and one here. Put the things that we use in the same way into each pile." (Wait for response.) |
| Indicate the food pile. | "Why did you put these in this pile?" (Wait for response.)<br>"This is the food pile. It has things that we eat in it." |
| Indicate the clothes pile. | "Why did you put these in this pile?" (Wait for response.)<br>"This is the clothes pile. It has things that we wear when we get dressed in the morning." |
| Remove the objects and present the hairbrush, the two combs, and three toys mixed together to the child. | "Here are some things to sort." |

(continued)

**an apple**
**a slice of bread**
**a pretzel**
**a child's sweater**
**a child's sock**
**a child's pair of long pants**
**a hair brush**
**a standard comb**
**a comb with a handle**
**three favorite toys**

# G.P.3

## Exercise C

(continued)

| | |
|---|---|
| Indicate the specific areas on the table and guide the child's hand to the areas. Help the child only if necessary. | "I'd like you to sort these things into two piles, one here and one here. Put the things that we use in the same way into each pile." (Wait for response.) |
| Indicate the toy pile. Accept any reasonable description or name for the toy pile from the child. | "Why did you put these in this pile?" (Wait for response.)<br>"This is the toy pile. You play with these things." |
| Indicate the brush and comb pile. Accept any reasonable description or name for the hair grooming pile from the child. | "Why did you put these in this pile?" (Wait for response.)<br>"This is the pile for things we use to keep our hair neat." |

The child should be able to select and name categories for grouping in the two activities in Exercise C without help from the teacher.

If the child is unable to select and name the categories in both activities, review the SELECTING Experiential Exercises and Guided Presentations 1 and 2; repeat Guided Presentation 3.

# Posttest

X

SELECTING

## Materials

six small, identical, individually-wrapped pieces of hard candy

six identical large wooden beads

a shoelace

a 12-inch strip of wide ribbon

a 10-inch piece of yarn

a quarter

a peanut in a shell

a piece of popcorn

a tube of toothpaste

a toothbrush

## Test

If the child chooses a category that is different from the intended grouping strategy but which has a logical basis, the teacher should consider the response acceptable.

1a. Present the candy and the beads mixed together to the child.

SAY: "I'd like you to sort these things into two piles so that only the things that are exactly the same are in each pile." (Wait for the child to complete the task.)

b. Indicate the first pile.

SAY: "What did you put in this pile?"

c. Indicate the second pile.

SAY: "What did you put in this pile?"

2a. Present the shoelace, the ribbon, the yarn, one piece of candy, one bead, and the quarter to the child.

SAY: "I'd like you to sort all of these things into two piles so that the things that are most alike are in each pile."

b. Indicate the first pile.

SAY: "Why did you put these in this pile?"

c. Indicate the second pile.

SAY: "Why did you put these in this pile?"

3a. Present one piece of candy, the peanut, the piece of popcorn, the toothpaste, and the toothbrush to the child.

SAY: "I'd like you to sort all of these things into two piles so that the things that we use in the same way are in each pile."

3b. Indicate the first pile.

SAY: "Why did you put these things in this pile?"

c. Indicate the second pile.

SAY: "Why did you put these things in this pile?"

If the child accurately responds to all of the above items, he or she has demonstrated an understanding of the concept selecting categories for sorting.